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ABSTRACT

A study was undertaken to provide an opportunity for faculty from five small, independent colleges in Iowa to become familiar with current developments concerning general education programs to facilitate planning and evaluation of general education in the institutions. The participating colleges were Briar Cliff, Graceland, Marycrest, Simpson, and Westmar. The report defines liberal education, liberal arts, and general education and discusses goals and implications of goals for curricular structure. Planning of general education programs, implementing changes in general education, and program evaluation are addressed. Three basic kinds of changes that liberal education should make in the student concern knowledge, personal attitudes or dispositions, and skills. An additional goal concerns the world of work: relating liberal education and the world of work and relating general education and specialization are considered. Varying requirement structures and organizational plans for general education programs, methods and evaluation, and the context of general education, particularly its relation to other components of the curriculum, are addressed. A bibliography on general education from 1974-78 and selected earlier works compiled by Leonard J. Bowman and Kathleen Welch is included. (SW)

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FIVE COLLEGES LOOK AT GENERAL EDUCATION

A Report Compiled by Leonard Bowman
and Faculty from Briar Cliff, Graceland,
Marycrest, Simpson, and Westmar Colleges

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FIVE COLLEGES LOOK AT GENERAL EDUCATION

The following is a report based on the work of faculty representatives from five, small, Iowa independent colleges studying, discussing, and evaluating alternatives for the general education component of the college curriculum. The study project was conducted during 1978-79 at University House, University of Iowa, on the basis of a professional development award made to the faculty participants by University House. The participants take full responsibility for this report; nothing herein necessarily reflects the views of University House.

The participating colleges, Briar Cliff, Graceland, Marycrest, Simpson, and Westmar, are in different stages of restructuring general education programs. Briar Cliff has initiated a new core program and is ready to evaluate it. Simpson and Westmar have just determined for themselves new core programs and are preparing to implement them. Marycrest and Graceland are in the process of gradually restructuring general education requirements.

The purposes of the study were to provide an opportunity for faculty from the participating colleges to become familiar with some of the current developments in regard to general education programs, to assemble information reflecting the concerns and insights of these representatives of small, independent colleges for use by their respective institutions, and so to facilitate planning and evaluating of general education in those institutions.

The above purposes also indicate the limits of the study. The nine faculty members participating in the study have no particular claim to expertise in general curriculum design, but represent varying disciplines and varying length of career--the kind of faculty to whom often falls the task, in small colleges at least, of serving on committees charged with the proposal, modification, or evaluation of general education programs.

The participating colleges are small, ranging in student population from a full-time equivalent of 700 to one of 1100. They are all church-related, but in degrees ranging from a "friendly fraternal relation" with a church in a college whose orientation is basically secular and academic, to a distinctly religious identity in a college where more than 80% of the students are church members. The small size of these colleges means that a close rapport of faculty and students is possible, and perhaps even presumed. Student-teacher ratios are lower than 15 to 1. Concern for values is part of the tradition of these colleges, as is a concern for the development of each individual student. Personal growth and questioning are encouraged, even--to varying degrees--questioning of religious tradition. Faculty generally see undergraduate teaching as their prime responsibility, and are oriented toward serving individual students. The teaching load of a typical faculty member is 12 hours per semester, often with four separate preparations. Research, while definitely not ignored, is clearly of secondary importance. Faculties are small, and so contacts outside one's discipline are the rule: one is interdisciplinary or he eats lunch alone.

The curricula of these colleges reflect a mix of liberal arts and professional fields. In college like these, the tensions of the late Sixties produced varying degrees of retreat from rigid and extensive requirement structures in general education, and the tensions of the mid-Seventies are producing varying responses to the vocational and professional orientation of so many students.

The value of this report, therefore, lies primarily in its usefulness to the institutions participating in the study project. Any value beyond that limited context will depend on the usefulness to others of reflections and evaluations made by these rather typical faculty members from these rather typical small private colleges.

The study of which this report is the product began in the late spring of 1978, when the participating faculty gathered in Iowa City with University of Iowa Professor H. Bradley Sagen as consultant. That meeting produced a general perception of areas of concern surrounding the topic of general education, which became in turn areas of research and reading for the participants during the following two months. Then in late July, 1978, the group met for an eight-day period at University House to share and compare their findings, to focus on issues of primary importance, and so to generate the material contained in this report.

The faculty members participating in the group are: from Briar Cliff, James Redmond, English and Sr. Grace Anne Witte, Sociology; from Graceland, Jon Wallace, English; from Marycrest, Leonard Bowman, Humanities, and Brenda Martin, Social Work; from Simpson, Joseph W. Walt, History and E. G. Booth, Education; from Westmar, Gary Bowling, Art, and Kirsten Borg, History. The consultant for the study was H. Bradley Sagen, professor of higher education at the University of Iowa. Assisting the group especially in developing bibliography and locating resources was Kathleen Welch, graduate student in English at the University of Iowa. The work of the group was made possible by a grant from University House which is under the direction of Dr. Lyell Henry. Constantly and ably facilitating the work of the group was the secretary at University House, Ms. Melody Scherubel. Finally, special thanks are due to persons and institutions who responded promptly and generously to the group's request for information, particularly Professor C. Robert Pace of UCLA and the academic deans at Alverno College, Brown University, St. Joseph's College in Rensselaer, Indiana, and The Evergreen State College, Olympia, Washington.

FIVE COLLEGES LOOK AT GENERAL EDUCATION

Introduction and Overview

College general education requirements are apparently making a comeback, reversing a trend that in the late 1960s caused most colleges to reduce requirements drastically if not eliminate them. But today's colleges cannot simply restore what was. Nor can they just do piecemeal tinkering with what now remains of former requirements. The challenge now is to rethink general education curricula in relation to today's possibilities and tommorrow's needs.

A representative group of faculty from five small Iowa independent colleges has attempted to rethink general education in the small liberal arts college. Their effort was supported by a grant from the Mellon Foundation through University House of the University of Iowa.

The rethinking of general education curricula begins with a consideration of the goals of liberal education. Those goals in turn have definite philosophic implications for curriculum design. Guided by goals and their implications, colleges can plan effective revisions in general education requirements, in course content, method and evaluation, and in the learning environment. The next step is to implement those planned revisions within the limits of an institution. Finally, once a general education program is implemented, effective means of evaluation can determine how well the program meets its goals and can help ensure its continued integrity.

A. Goals

The goals of liberal education can be understood as the kinds of changes that should take place in students as a result of their education. Three basic kinds of changes are commonly expected by colleges: growth in knowledge, development in personal attitudes or dispositions, and development of skills.

Another kind of goal arises from current social needs. One such goal, particularly relevant for today's students, is relating liberal education to the world of work.

1. Knowledge. General education can introduce college students to the basic ways we have of knowing ourselves and our world. These ways of knowing are embodied in the fundamental academic disciplines, the liberal arts. These disciplines will also aquaint students with the human cultural heritage: the sciences, the arts, and the humanities.

Required general education courses can also provide a common core of knowledge and a common education experience for all students entering an institution. This common core can then form a base for further learning.

Perhaps the distinguishing characteristic of a college education is critical inquiry. General education should initiate in students a habit of critical inquiry by raising questions to students' earlier ways of understanding and by providing ways to reach new understanding.

General education should also help students to make connections among different subjects, so that they reach an integrated sense of themselves and their world through their education.

2. Personal Attitudes or Dispositions. Some attitudes or dispositions that should result from a college education are cognitive. Liberal education should liberate from narrowness by enlarging the student's awareness of his or her world. Students should also develop tolerance for multiplicity and ambiguity, mainly through learning how to see things from a number of different perspectives.

Other dispositions are non-cognitive. Two such dispositions which deserve special emphasis in general education are self-understanding and a sense of values.

3. Skills. Students are expected to develop a variety of skills in college: skills in communication, computation, research and critical thinking. Further, some skills can prepare students for effective citizenship in the future: the ability to take civic and social responsibility, and the ability to adapt to change.

4. Liberal Education and the World of Work. A current challenge facing colleges as well as students is to relate liberal education to the world of work. A key response to this challenge is a new definition of "career" which includes all aspects of a person's productive life. Another response is to bring experiential learning and practical application into the liberal arts.

B. Implications.

Each of the above goals has definite philosophic implications for curriculum design.

1. The goal of knowledge raises the problem of defining the divisions of knowledge. Traditional academic disciplines have not been able to organize general education adequately. Efforts to identify more comprehensive structures of knowledge have produced an emphasis on ways of knowing or modes of thought, an emphasis that can replace subject matter as a primary concern for general education courses. Further, the fragmenting of knowledge which can result from separating academic disciplines has produced as a response an interdisciplinary approach to general education, an approach which stresses the links binding disciplines together and which bring students to think in terms of reality as a whole rather than of disconnected parts.

2. Personal attitudes or dispositions grow as part of the student's total personal development. The study of the process of development can therefore provide insights valuable for planning general education, because

students at different levels of intellectual development learn in different ways and for different motives. Teaching methods need to be adapted to the students' readiness to learn. Further, developmental change occurs in a characteristic way. A student meets questions or challenges beyond his or her understanding. The resulting discomfort drives him to seek new knowledge and deeper understanding. If the college wants to foster development, such challenge--and discomfort--should be built into the curriculum, along with personal support for the individual student.

3. When skills are identified as the goals of liberal education, stress is placed on tangible results. Curriculum planners need then to define desired skills so that it is clear what one must do to acquire and demonstrate them. A curriculum based on skills will therefore stress definition of skills and the means for evaluating them.

4. The need to relate liberal education and the world of work calls for understanding "career" as the whole life of a person. Then career preparation should include liberal arts, partly because of the need for adapting to change, and partly because of the need for dealing with values in any career. On the other hand, liberal education should be practically useful, and so should benefit from some methods and orientations of career programs. The liberal arts or general education curriculum and the specialized major programs should complement one another rather than conflict.

When we reflect on the philosophic implications of the different kinds of goals for liberal education, it becomes clear that a general education program need not choose only one among those goals. Rather, it should try to achieve an optimum combination of all the goals.

C. General Education Programs.

Once the goals of general education have been clarified and their philosophic implications considered, it is time to confront the specifics of curriculum design: requirement structures and courses in the total curriculum.

1. Requirement structures present a limited set of alternatives: individually designed programs; distribution structures; "core" courses, required of all students entering a college, which are often interdisciplinary; or a combination of required "core" and distribution.

Individually designed programs became popular in the late 1960s as a response to demands for increased student freedom and responsibility. Their weaknesses soon became apparent. Such programs depended on students who were highly capable and motivated, and on faculty who were insightful and always available. Without those, faddish and watered-down courses too often became the rule.

Distribution requirements allow students freedom within specified limits which ensure some breadth and challenge in general education. The divisions for distribution will be based on the college's philosophy of the structure of knowledge. Some colleges group requirements by related disciplines. Some have recently used a "modes of thought" approach, resulting in courses selected less for subject matter than for learning process and course objectives like introducing students to a way of knowing and making connections between specific subject matter and the larger world.

Required "core" courses can provide for a common educational experience for all students who enter a college. Often such courses are interdisciplinary, team-taught courses which also attempt to integrate learning. Some of these are organized around historical eras, others around contemporary problems. While the interdisciplinary approach to general education is very attractive

in principle, it has frequently proved difficult to implement. Colleges interested in trying this approach should recognize that a serious investment in time for planning and for faculty preparation is needed if an interdisciplinary course is to be effective.

2. Courses for general education can be examined not only for subject matter and objectives but also for methods of teaching and of evaluation.

A developmental approach to general education directs our attention to methods of teaching. Active student participation is to be encouraged rather than methods, such as the lecture, which often leave the student passive. The whole person should be involved in learning, so learning experiences should have an affective and an experiential dimension. For the developmental approach, the teacher is no longer primarily a dispenser of information but a guide for the students' personal search for knowledge and understanding. Faculty are called upon to be personally interested in students and available for them as they face the discomforting challenges of that search.

Instruments of evaluation should correspond to course and program goals. Indeed they often do dictate many students' practical goals: only that is considered important which will be on the test.

Evaluation of students usually means grading. Dissatisfaction with grading has frequently been expressed, by students because grades seem either unfair or inadequate as a measure of their learning, and by faculty partly because of the difficulty of reducing a student's insight and development to an arbitrary scale, and partly because of a possible descrepancy between grades as rewards and the goals of liberal education. After all, the goals of liberal education seem compromised if a student's main motivation clearly is to maintain a 3.8 GPA.

Alternatives to grading, however, confront serious practical difficulties. Replacing student transcripts with dossiers composed of letters of evaluation simply requires too much faculty time to be practical in most colleges. Replacing standard grades wholly or in part with a "pass/no pass" system meets objections from graduate schools and industry, where an objective measure of student performance is desired. Contract learning, in which the student is evaluated only in terms of the goals he set for himself, combines the complexity of the dossier with the lack of objective scale in the "pass/no pass" system.

One alternative tries to separate evaluation from teaching, so that student and teacher cooperate in relation to examinations given from a third source. The senior comprehensive examination could fill that role on a limited scale, and as well provide a means for evaluating integration of learning.

3. General education programs share the curriculum with major programs and electives.

General education programs differ from electives by imposing some requirements, fostering some commonality in learning, and calling for the integration of learning. The values of student freedom and responsibility sought by "open curriculum" proposals of the late 1960s are valid, and can find expression in students' choice of electives. Colleges should therefore not permit major programs or general education requirements to define so much of a student's curriculum that little room is left for electives.

In practice, the education of most current students centers around the major program. There is a danger that this emphasis on the major can impede goals of liberal education like breadth and integration of knowledge. But

the danger can be avoided if major programs recognize that their place is within liberal education. Then programs and courses can be designed with the goals of liberal education as a guide, and major programs and general education can be tailored to complement one another in the individual student's education. If the major program forgets its place--for instance, by advising students to "get general education requirements out of the way" and to reserve serious study for courses in the major--then it is evident that the institution has to that extent departed from a mission of liberal education.

D. Implementing General Education Programs.

Designing an effective general education program may be easier than gaining acceptance for it, or than keeping it going once it is accepted.

Successful curriculum proposals are usually the result of extensive planning by a group involving faculty, students, and administration. If an institution is at all serious about renewing general education, a significant investment is necessary to ensure a large block of supported time, either release time during the academic year or summers, to design a program and to work out details of implementation.

If a proposal calls for substantive changes or for an increase in the number of courses required for general education, resistance is to be expected. A comparison of current proposals to the extensive general education requirements in force up to the late 1960s, however, may show that requested increases are relatively modest. One rule of thumb calls for one-third of a student's total courses to be in the major field, one-third electives, and one-third general education. The burden of proof would then rest with the component of the curriculum seeking a larger share.

To maintain an effective general education program, a college should identify a clear center of responsibility for the program, either a director

or a committee charged primarily with the program. Further, consciousness of the goals of liberal education should be maintained among faculty, perhaps through frequent discussion, or perhaps through periodic evaluation of teaching and of courses in terms of those goals.

F. Program Evaluation

Evaluating a general education program requires a complex effort. Student achievement, especially cognitive achievement, can be evaluated through standardized tests or through subsequent performance in graduate schools. But the program itself needs to be evaluated in its various dimensions. The educational goals of the college and of the program should guide evaluation. So cost-accounting, while important, should never be the sole measure of a program's or course's worth. Periodic program evaluation should also include contributions from students, colleagues, administrators, alumni, and perhaps outside observers. Some dimensions of a program can be evaluated by objective instruments, but it would be a mistake to rely exclusively on them despite their apparent reliability. Less tangible dimensions of a program can be evaluated in a way nearly as reliable when colleagues, students and alumni agree in their perceptions of a program's effectiveness.

Conclusion

Designing a general education program is a task that belongs to the faculty, administration, and students of the institution involved. There is no readymade curriculum a college can simply adopt. But it would be futile to attempt such a task in the dark. That is why time is needed: time to become familiar with the goals of liberal education and their implications, time to examine and assess possible alternatives in curriculum design, perhaps

time to consult with experts or with those in other colleges who have revised general education requirements, and finally time to draw up a program guided by the unique goals fitted to the possibilities and the limits of the particular college.

I. Definitions

A. Approach

The group recognized from the outset that curriculum models have little real meaning apart from the context in which they functioned. The particular mix of curricular variables on each campus is too different to allow easy transplanting of programs. But more important is the philosophy of higher education that implicitly or explicitly informs the mission of a particular college. That philosophy is commonly expressed as a set of goals for the institution: primarily the expected results of a college education in the life of the student, and then perhaps the impact the college seeks to make on its community. Curriculum then becomes the ways those goals can be achieved.

Since it is virtually impossible to define means unless the ends those means intend to reach are first clarified (B7), the attempt to provide really useful information on possibilities for general education is likely to be futile unless the fundamental purposes and the particular goals of general education are first discussed.

The need for clarifying goals and a basic philosophy is particularly apparent in those cases in which decisions regarding the shape or content of general education programs have been based on economic or political criteria (B7). Decisions concerning general education have serious philosophic implications and serious implications for the actual (as opposed to stated) mission of an institution. Unfortunately, the criteria or decision rules by which such crucial decisions are made often remain only implicit, and so unavailable for critical examination. The need for explicit criteria will be more pressing in the lean years ahead, especially as demands are made on general education by major programs, particularly professional programs, to meet their needs as well as to meet the goals of liberal education.

Hence the group of faculty meeting at Iowa City spent the majority of their time discussing general goals and basic criteria for decisions, rather than specific programs or strategies. As a result, this report will concentrate first on the basic kinds of goals proposed for general education, and then analyze some implications of those goals when used as principles for designing elements in the curriculum.

B. Clarification of Terms

This discussion is confined to the curriculum of the four-year independent college. For practical purposes, the group's attention focused on courses and credit as the basic elements of the curriculum. The curriculum so understood divides generally into courses that are requirements of a major program, courses that are required by the college as general education, and electives. Extracurricular aspects of the college are significant to the extent that the college environment contributes to or detracts from the accomplishment of the goals of education.

Three interrelated terms need working definitions: "liberal education," "liberal arts," and "general education." Briefly, "liberal education" is the broadest term. The liberal arts form one avenue of liberal education. The component of liberal education not included within the major program, and to an extent excluding electives, is called "general education." Further explanation for each of these terms follows.

1. "Liberal Education"

A Liberal Education is characterized generally as one which focuses on the person to be educated, one which raises the "why" questions regarding the various aspects of human life in society, and one which seeks to prepare students for leadership and public responsibility in some form (G8). Another approach

to these characteristics speaks of liberal education as a set of experiences designed to enable a person to live the "examined life," and so produce the "scholar-citizen," or which prepares students for the "profession of public citizen" (G8).

Discussion seeking the basic distinguishing characteristic of a liberal education came to rest with the concept of critical questioning. So, for instance, it would not be enough that a student majoring in a professional field simply be exposed to cultural experiences to say he received a liberal education. Critical perspectives on those cultural experiences would be necessary--both critical analysis of cultural works and critical analysis of the way a person knows and responds to such works. Thus the term "liberal education" refers less to subject matter than to an approach that allows and promotes continuing inquiry. So the group found itself here quite close to Daniel Bell's definition of the college:

> ...the distinctive function of the college must be to teach modes of conceptualization, explanation and verification of knowledge.
>
> ...the distinctive function of the college [as opposed to the high school and the purely professional school] is to deal with the grounds of knowledge: not what one knows but how one knows (A2).

Liberal education characterized by critical questioning will likely challenge the student to undo or to advance beyond the understanding of the world with which he or she entered college. So it should facilitate deeper insight into the self and a different sense of world from that with which the student began.

This distinguishing characteristic of liberal education is also related in a significant way to career education, at least to education for "the

emerging professions (J32), for critical questioning should provide for adaptability and for the ability not only to change careers, but to develop new kinds of careers.

"Liberal education" will therefore include virtually everything the student learns during his college career. "Liberal education" then includes the major, as well as electives and any college requirements.

2. "Liberal Arts"

"Liberal arts" refers to those academic disciplines traditionally considered the route to the goals of liberal education. These disciplines are selected first according to their fundamental relationship to basic kinds of human cultural products: for example, the humanities, the sciences, the appreciation of the arts. Hence the liberal arts are seen as the bearers of the human cultural heritage. The liberal arts are the disciplines which exist primarily for the intrinsic merit of their meaning and explanation (C13). Traditionally certain disciplines are included within the liberal arts, such as English Literature and Philosophy, and newer disciplines might fit well within the liberal arts because of their subject matter and method.

The use of the term "arts," however, seems to identify "liberal arts" as a category parallel to "fine arts" and "useful arts"--implying an element of performance or skill. Bernard J. Coughlin suggests that the liberal arts are mental arts, "...not a prescribed curriculum or educational program; rather they are various tools and educational processes for achieving mental skills" (G8). The group noted that even the classic position that the liberal arts are concerned with knowledge for its own sake finds value in the personal qualities resulting from the study of the liberal arts--for instance the qualities of the "gentleman" described by John Henry Newman (A37).

The current term "liberation arts" may be understood in this context. "Liberation" means at least the removal of ignorance. And so it means providing the student with the critical perspective that will enable him or her to make independent judgments, based on his own awareness of the context, assumptions, sources, and principles underlying at least the basic fields of human endeavor, the liberal arts. So a course in economics would more likely be liberating than one in accounting, for the former provides access to the most basic principles, whereas the latter emphasizes application or more narrowly focused principles.

Consequently, the "liberal arts experience" is valued not only because of the intrinsic worth of learning in these disciplines, but for its instrumental value--the kinds of skills and dispositions that result from it. These skills and dispositions, including the ability to adapt, make liberal arts an extremely valuable component of career education, particularly in relation to a future in which changes will require continuous adapting and reintegrating. The role of the liberal arts in career education is currently a primary topic of discussion in journals on higher education. It will receive more attention later in this report.

If the "liberal arts experience" is valued because of its results, then there is recognized some justification for the position that those results may be attainable through experiences not limited to the traditional Liberal Arts disciplines. At this point, another term rises into the discussion: "general education."

3. "General Education"

The term "general education" has two different meanings. The meaning intended in this report is the component of the undergraduate curriculum

consisting of courses outside those required within the major program, which in one way or another attempt to lead the student toward the goals of a liberal education. This report does not mean by "general education" the movement questioning whether the liberal arts are in fact the best way for today's students to arrive at the goals of liberal education.

"General education" then refers to one of the components of the undergraduate curriculum, typically a structure of courses required of all students, which is concerned for reaching those goals of liberal education involving breadth of general knowledge rather than for developing a specialized competence. General education is therefore usually given the responsibility of handing on the cultural heritage, of "engendering essential meanings" (C13), of acquainting students with the basic content and the essential methods of several disciplines considered fundamental by the institution.

II. Goals

The attempt to provide useful information on possibilities for general education is likely to be futile unless the fundamental purposes and the particular goals of liberal education are first discussed. Those goals apply for the most part to general education as the component of the curriculum largely concerned with ensuring that students are liberally educated no matter what their major field.

Probably the best catalog of goals in higher education is that developed by Howard Bowen (B10) and quoted as an appendix in the Carnegie Foundation's Missions of the College Curriculum (A7). The following discussion does not intend to duplicate such a catalog, but to emphasize goals of particular importance for general education in the small, independent college.

Those goals look to three basic kinds of changes that liberal education should make in the student: knowledge, personal attitudes or dispositions, and skills.

A. Knowledge

General education should introduce students to the fundamental disciplines, which embody the basic ways we have of knowing and our basic patterns of explanation (C13). These disciplines constitute the liberal arts. They are considered liberating arts because they provide the foundation upon which other, applied, disciplines rest, and so they make possible a critical understanding of any given field.

Further, the liberal arts disciplines are those primarily concerned with the human cultural heritage. This heritage is seen as valuable in itself. And the "liberal arts experience" is beneficial in itself as well as because of its by-product, the well-rounded person. Moreover, as Bowen indicates by

including this goal among goals for society, the maintaining of the human cultural heritage has a value reaching beyond the student's development, and is of concern to society as a whole.

A goal particularly significant for general education is that of providing a common educational experience as a base for further learning (so that we do not have students in upper-division classes who do not know what the French Revolution was, or who Isaac Newton was). Although the determination of that common educational experience is understood in relation to the educational aims and needs of the particular institution, it has implications for the world at large. We need a common content to enable us to communicate from some shared base of understanding. Hence the needs of society should be considered in determining the content of general education.

But the moment the goal of a common content for general education is proposed, two questions arise: who says what that content should be, and what about individual differences among students?

For the sake of the individual, the common content must be flexible enough to allow for differences, particularly among minority students. While such flexibility may be difficult to achieve, the need for it is evident.

Determining what makes up that common content, though, presents a more complex question. It means shaping a concept of the world for all students, and so it can have significant, long-range effects of the individual and on society. Is the content to be Western Civilization only, or should it include Asian culture? Does it focus on America, or is its context global? Decisions on such alternatives are significant. Who should make them? What kind of criteria should guide such decisions? Considering the long-term effect of such decisions on society, should society (through government) be allowed to

influence the content of general education? Such questions complicate the goal of providing a common content for general education.

Liberal education should also bring the student to participate in a process of learning characterized by critical questioning and by self-directed, continuous learning. In its most basic form, this goal amounts to initiating a process of inquiry by the student. Inquiry begins when a student's values and assumptions are challenged by what he or she meets in college. Then the components of new perspectives are presented to the student, and he or she is also introduced to alternate modes of inquiry reflected in the various academic disciplines. This educational goal is particularly suited to the small independent college, for there is greater opportunity for attention and support for individual students through the process.

The process of inquiry, however, should be as well a process of integrating important aspects of self and one's world. Part of learning should therefore be making connections, seeing interrelationships among things studied, and among those things, the self, and the world. Faculty may often assume that such integration is taking place in the minds of the students, but often it simply does not occur. The achievement of this goal cannot be taken for granted.

Liberal education should also result in a breadth of knowledge and awareness, and an ability to think in terms of the whole (holistic thinking) (J3).

B. Personal Attitudes or Dispositions

A second kind of change liberal education should make in a student concerns personal attitudes or dispositions. Some of these dispositions are cognitive in character, while others are emotional or moral. Attention to personal dispositions as a goal of education suggests that general education does not merely transmit a body of knowledge, but seeks to prepare a person for living (A13).

Two important cognitive dispositions are liberation from parochialism and tolerance for multiplicity and ambiguity. Liberal education should liberate from parochialism primarily by helping the student enlarge his world, which he does through the process of inquiry. Changes (for better or worse) that generally occur in college students at least reflect that this is happening: declining dogmatism, greater openness to pluralism, personal independence, and declining commitment to organized religion (I10).

Tolerance for multiplicity and ambiguity involves first the development of ability to cope constructively with new situations, then a willingness to value and even celebrate cultural pluralism. Such tolerance can be seen as a willingness to take more than one perspective on the world, indeed to be capable of moving across a number of perspectives (J7).

Other cognitive dispositions include critical thinking, "historical remembrance, critical reflection, moral resolve, thoughtful reverence" (B26); a practical wisdom consisting partly of an understanding of the post-modern world and of one's vocation in it, and partly of skills to carry out that vocation (B7); and the integration of values and of cognitive skills (J15).

Two non-cognitive dispositions deserve emphasis: self-understanding and values.

Liberal education should promote self-understanding by enabling a deeper insight into the self and a new sense of the relationship of self with the world. These dispositions may result from challenges in the curriculum which undo an immature and inadequate understanding and draw students into a process of inquiry and of re-integrating themselves in relation to a larger awareness of the world.

The relation of educational goals, curricular structures, and self-understanding in the future--i.e. the capacity of persons to adapt to their world in the future--are discussed forcefully by Stephen K. Bailey (B3, J3). Capacities for creative response to the "existential realities ahead" are for Bailey the most practical goals of Liberal Education: capacities for dealing with major changes in personal life, for coping, working, and using free time effectively and creatively, and for effecting constructive social change.

In relation to values, it is becoming evident that value-free or value-neutral education is an abstraction, not a reality. Indeed, it is doubtful if value-free education would be desirable even if it were possible. The question is not, then, whether liberal education should be concerned with values: it is. The question is rather which values or kinds of values are appropriate for colleges to perpetuate.

The urgency of value development has been underscored by a growing emphasis among educators in professional fields on value issues. But the professional fields turn to the humanities--hence in effect to general education--to provide a base and a framework for value development (J11).

Moral values belong in the curriculum not simply as a subject for historical review, but as a context of choice, both personal and societal (B7). Liberal Education should enhance a person's capacity for making significant and responsible decisions. Further, education should aim to develop in the student an ability to formulate a viable value-system to direct his choices (J32).

The kinds of values appropriate for a college to perpetuate are personal qualities rather than accepted collective norms. Personal values like self-knowledge and self-acceptance are in place, and as well values that reach beyond the self--a reverence and sense of wonder in regard to the world

and sense of responsibility to other human beings.

C. Skills

Goals described as practical skills or competencies include cognitive ability (verbal, mathematical, communicating skills), skills in research and critical thinking, capacities for adaptation to change, capacity to contribute to the larger society, and a capacity for constructive social criticism (B7, B10, J32).

This kind of goal is taking on new importance because the kind of student now entering college tends to be interested in doing things, and in seeing practical applicability in learning (I8).

Skills particularly significant in planning general education for the future are taking responsibility as a citizen of nation and of world, and ability to adapt in a changing future.

Taking civic and social responsibility entails a sense of shared enterprise, of participating in a national and global community that becomes to an extent the context of one's thinking, valuing, and choosing. There are two complementary sides to this goal. First, one desired outcome from Liberal Education might be actual social involvement on the part of students and graduates. At the very least, the graduate should have overcome the kinds of bias and narrowness that are sometimes apparent in persons so concerned for the good of a particular group that the common good of the larger community is forgotten or jeopardized.

The other side to this goal proposes that liberal education should result in skills enabling one to work for constructive change. These skills involve critical reflection on the values and practices of one's contemporary society, and a sense of responsibility to address--in one's thoughts, words, and

choices--the problems facing society.

The ability to adapt in a changing future includes an ability to respond constructively to new situations and a habit of continual learning (I10). The ability to appreciate diversity, to accept ambiguity and to see things from a number of perspectives (J7) will contribute to one's response to new situations. Effective learning requires that a student learn how to apply what he studies (J4). Part of the task of undergraduate education should be to equip students for learning that is lifelong and ultimately practical. Clearly this goal touches the cognitive goal of initiating a process of inquiry. But it has a further implication for colleges; Liberal Education need not be restricted to people of college age or in college situations (I7).

D. An Additional Goal: Liberal Education and the World of Work

The foregoing discussion focused on basic goals of liberal education for the individual student. There are other kinds of goals describing the impact of higher education on society (B10, A7) and goals arising from current issues in society.

Current social issues provide a rationale for some newer fields in higher education: ethnic studies, energy and the environment, and international education, to name a few. One current issue, however, is of particular importance for general education today, as students are increasingly career oriented. That issue is the relation of liberal education to the world of work.

The goal of integrating liberal education with the world of work offers a challenge in two directions. First, it challenges the traditional Liberal Arts to reflect on and demonstrate their importance and their place in relation to the likely careers of students. Second, it challenges career education to

redefine career in a richer sense than "gainful occupation," to include all aspects of a person's productive life as an integrated whole whose meaning reaches beyond the scope of professional preparation and calls for the concerns and approach of the Liberal Arts. Curricular issues relating to this goal include the relation of general education to professional majors, the redefinition of "career," and the integration of Liberal Arts with existential questions of personal and social life and career.

Once the goals of Liberal Education have been articulated, the consideration of alternative models for General Education has a relatively clear basis for analysis and judgment. The next step is to consider the implications for the curriculum of the kinds of goals discussed.

III. Implications of Goals for Curricular Structure

Once the goals of Liberal Education and hence of General Education have been clarified, it is possible to discuss principles for structuring general education curricula. The first stage of the discussion will focus on implications of the goals discussed in Part II. The second state (to be discussed in Part IV) will examine the actual ingredients of curriculum with an eye toward implementing structures to achieve intended goals.

The three basic kinds of goals discussed in Part II will provide our structure: knowledge, personal attitudes or dispositions, and skills. Then we will face the particular challenge of integrating liberal education and the world of work.

A. The Implications of Knowledge as a Goal

Two significant challenges are related to knowledge as a goal for liberal education. The first is to define the structure of knowledge, particularly its divisions. The second is to integrate knowledge, particularly through an interdisciplinary approach to curriculum.

1. Defining the Structure of Knowledge

The content of the curriculum at the college level should reach beyond mere information. Rather, according to Daniel Bell, the college should be concerned with the modes of conceptualization, explanation and verification of knowledge--not simply knowledge as information but the grounds of knowledge (A2).

However, knowledge as information is certainly not to be excluded as a goal, for the common education experience sought as a goal implies some degree of common information. Further, the Liberal Arts goal of handing on

the human cultural heritage implies some degree of common information, common works to be read, themes to be explored, and masterpieces to be appreciated.

An objection raised to information as a goal is that in an age of exploding knowledge, it becomes difficult to identify an essential core of information. Nevertheless, the task set before the designers of general education curricula is to identify and select what information should be common possession of students, at least in the particular institution (B7).

The challenge implicit in using content as a structuring principle of the curriculum is then that of selection. Immediately the criteria for selection become a potential problem.

The traditional academic disciplines provide a rather handy way of dividing knowledge. Implicit in the concept of discipline is that knowledge can be divided according to sets of basic concepts, logical structures, and criteria for truth by which disciplines are identified and distinguished from one another (C14).

Two problems arise from using disciplines as the primary criterion selection. First, the selection is too fine, producing too many divisions. Some broader grouping is necessary for designing general education curricula lest requirement structures become unwieldy and occupy a disproportionate amount of the students' course work. But identifying the broader grouping is difficult. Humanities, arts, and natural sciences provide rather congenial groupings--though humanities divisions sometimes absorb certain arts and sometimes even includes professional fields such as communications media and journalism, while the place of history becomes ambiguous--among the humanities or the social and behavioral sciences.

The second problem with using disciplines is that not all academic subjects fall neatly within the concept of "discipline" noted above. The natural sciences usually can point to a definite set of concepts, a definite logical structure, and definite criteria for truth. But within the humanities, the discipline of philosophy points to a variety of opposing concepts, several quite disparate logical structures, and a controversy concerning criteria for truth, thereby stretching the concept of "discipline." Further, religious studies generally refrains from even calling itself a discipline, claiming the name "field" for the diverse contents under its umbrella. So disciplines tend to be rather fluid creatures (Schwab).

There is a further danger in the use of discipline as the criterion for selecting curricular content. It might be possible for a well-meaning but overzealous professor at some remote college to begin excluding from the realm of knowledge those subjects which do not conform to the definition of a discipline, in Procrustean fashion forcing reality to conform to definition. One form of that danger is the tendency to impose the epistemology of the natural sciences on the entire curriculum--enforcing a reductionist rigidity which is ill-advised considering the goals of liberal education (C6).

The inadequacy of using traditional disciplines as categories of general education has led to a number of attempts to redefine the structure of knowledge. Perhaps the most ambitious effort is that of Philip Phenix in Realms of Meaning (C13). His thesis is "that knowledge...has patterns or structures and that an understanding of these typical forms is essential for the guidance of teaching and learning." Six typical forms are proposed: "symbolics, empirics, esthetics, synnoetics, ethics, and synoptics."

Symbolics includes socially employed systems of communication, such as language and mathematics. Empirics consists of formulations based on observation and experiment--the sciences. Esthetics covers literature and the arts. Synnoetics teaches personal, direct knowledge such as that shared by persons in a relationship. Ethics has to do with personal conduct. Synoptics reaches to integrative knowledge and includes history, philosophy and religion. Phenix considers these the fundamental categories of meaning, and any particular subject can be understood as an expression of one category or of a combination of categories.

Phenix's proposal raises a number of questions. Are these six realms really an exhaustive description of human knowledge, or are they arbitrary and incomplete? Are they all of equal importance to education, or is there a hierarchy among them? Are there existing subject areas in all of them? (For instance, what belongs in synnoetics?) Since any subject area is likely to overlap several realms, is this division really useful as a guide for curriculum, or does it simply add another layer of distinctions?

One significant aspect of attempts such as Phenix's to redefine the structure of knowledge is a growing tendency to stress modes of thought, patterns of learning, uses of language and logic and the like, rather than subject matter in designing general education curricula. So, for instance, the new general education curriculum at Harvard (G23) departs from survey courses, which sought to provide an overview of subject matter, and favors courses in which a more restricted subject matter is developed as a vehicle or model for the type of learning the student is to acquire (F35).

2. Integration of Learning; Interdisciplinarity

While the problem of the faculty or the curriculum designer is to arrive at adequate divisions of knowledge, the problem given to the student is that of integrating: putting together the bits and pieces of information and experience he gains through the curriculum into a comprehensive sense of the world. Here the frequently articulated goal of breadth is at issue. General education is charged with providing the student with an expanded sense of the context for his life and for his specialization.

But if integration is to be a desired goal of education, then evidently some explicit curricular structure or mechanism should be designed to bring integration about, both by assisting the student to find or draw connections among the subjects of study, and by explicitly demanding that he does draw such links.

One criterion for determining the appropriateness of a course for general education, then, would be the extent to which it relates the discipline or content to the larger context, and to reflection on the process of learning and thinking as a whole. General education courses would then be distinguished from introductory courses for majors in a discipline by being general, holistic, and contextual as well as disciplinary in orientation (J15).

Such an integrative or holistic orientation should not by any means be excluded from courses in a major. For the goals of liberal education can apply to every element of the curriculum and not exclusively to the general education component.

Perhaps the most extensive effort to achieve integration has been the development of interdisciplinary courses and even programs in the general education curriculum: perhaps the development could be called an interdisciplinary approach to undergraduate education.

Proponents of the interdisciplinary approach to undergraduate education remind us that reality itself is interdisciplinary, and that students are probably interdisciplinary in orientation when they arrive at college. Further, arguing that worthwhile education should be applicable to life in the world (A29), they point out that the problems of life stubbornly refuse to come packaged in disciplinary wrappings, and so require an interdisciplinary approach (F7).

On the other hand, academic disciplines provide essentially partial perspectives which students should appreciate precisely as partial. Further, the division of disciplines is historically anything but stable, and may even be quite arbitrary (F27). General education should reach beyond the boundaries of the separate disciplines.

A further consideration is that interdisciplinary studies may provide an opportunity for faculty and students to move together as a community toward a solution of problems, and so may be a way of achieving real participation in the process of learning.

Interdisciplinary core courses and seminars, with their advantages and disadvantages, will be discussed more in detail in Part IV.

The goals of general education characterized as knowledge, then, focus on the actual subject matter being taught, and on the basic kinds of knowing. Further, the goal of integration calls for some curricular structures to achieve it, perhaps even for an interdisciplinary approach in general education.

B. Personal Attitudes or Dispositions

The goals of liberal education reflecting personal dispositions also reflect a process of change or development that should take place within the student. A significant implication of these goals is that liberal

education is part of a developmental process. So the psychology of cognitive and affective development can help us to understand that process and how to facilitate it.

The developmental approach to education suggests that personal development requires the completion of several significant tasks. Some conceive of those tasks as a fixed series of advancing steps or stages, in which the lower or earlier steps must be completed before one can advance to the higher steps.

Descriptions of developmental tasks vary significantly in their structure, in the qualities emphasized the the various tasks, or in the order and number of stages described. A representative list of tasks seen as stages is provided by Arthur Chickering in Morris Keeton's collection of essays entitled Experiential Learning (G27). He describes four basic stages, beginning with a self-protective, opportunistic ego development matched by intellectual development characterized by simple recall. The next stage is the conformist personality intellectually able to comprehend and apply knowledge. Third is a rule-oriented, conscientious personality intellectually able to analyze and to put things together. Finally emerges the automous personality intellectually capable of evaluation.

Chickering suggests that "By recognizing these general patterns and responding to individual differences within them, our ability to help students identify their own motives and educational needs will be enhanced substantially" (G27).

Three implications of the developmental approach have particular bearing on general education. First, adult learners are often assumed to be cognitively mature--in what Piaget calls the stage of "formal operations," in

which one can deal with abstract relations, and can "try on for size" ideologies, etc., one has not actually experienced. But up to 50% of entering college freshmen may not be functioning effectively at that stage when they arrive; even more, perhaps, may be functioning at that stage in only one or a few subject areas (D1). And if it is true that a person is not capable of relating to something significantly beyond his state of development, then the effectiveness of teachers can be limited unless they take the developmental level of their students into account. Effective general education--cognitive, emotional and moral, and interpersonal--will result from a "reasonable match" between the developmental stage of the student and the learning experiences provided by the institution (G27). The college should meet the student where he or she is so that the challenge to further growth can be effective.

The second implication of the developmental approach amplifies the first. Developmental tasks correspond rather clearly to different styles of learning. So, for instance, Bloom (G27) lists stages ascending from memorization and simple application at the lower level through analysis, synthesis, and finally evaluation at a higher level. Chickering (G27) provides a table detailing educational practices corresponding to the stages of development.

Certain styles of learning appear to be more appropriate to the adult learner than others. So just as it would be impossible for students in lower primary grades to do complex literary analysis, so it will likely be frustrating for students who are independent thinkers if memorization and simple recall are presented as the substance of learning.

The third implication of the developmental approach concerns the process by which a person advances from a lower to a higher stage of development. One form of this process was discussed briefly earlier as the process of inquiry,

which begins with a tension between a person's understanding of his world and the challenges he meets. A student's habitual way of understanding and relating to his world is subjected to question--either by problems he cannot solve, questions he cannot answer, or situations he does not know how to interpret or evaluate. Developmental theorists believe that the resulting discomfort or dissonance is the motive power for change and growth.

Two factors beyond the individual himself enable him to grow through such tension to a new and more advanced understanding. One is the availability of the components of the new integration--concepts, language, information, modes of thinking and methods of problem solving--in the person's environment. The other, perhaps more important, is interaction with persons who are functioning at the higher level, usually teachers, but not limited to them. Through such interaction a person can develop a new way of understanding and relating to his world that is qualitatively different, and that ideally includes an expansion of caring and a sense of human solidarity, passing beyond egocentrism (G27).

If the process of development is taken seriously as a basis for designing curriculum, several challenges arise. First, development is an individual process, and so the diverse styles of learning, stages of development, and speed of development must be taken into account. Critical here is the problem of evaluating students--diagnostic evaluation for readiness to learn at a certain stage, and evaluation of achievement which here is understood relative to the individual. Further, in any given class several diverse styles of learning and stages of development will be represented. If a reasonable match between the learner's stage and style and the educational experience is a requisite for effective learning, then much flexibility is demanded of the teacher.

Two factors to facilitate development, however, can be rather readily allowed for in the curriculum. One is the element of creative tension, a "continuing series of not-too-threatening discontinuities" (I-10) which provoke the kind of discomfort that motivates change without overwhelming a person. Such discontinuities can be built into teaching methods and methods of evaluation. The other is the necessity for active engagement in the process of inquiry on the part of students. Passivity is debilitating and must be overcome. Learning must demand personal engagement of mind, will, and feelings. One clear way to initiate such engagement is to integrate study, particularly in the Liberal Arts, with questions of personal and social development (I2). The student doesn't really confront an issue or question unless he does so personally, where his value system and his habitual way of understanding and relating to the world confront a personal challenge. Learning should therefore be "experiential" in a special sense- that students learn through personal participation in an event, even if that event has the form of a book or a lecture (G27).

Personal development has several difficulties as model for structuring General Education. Most notably, the student might possibly respond in negative ways to tension introduced into his life, and either resist development or actually experience some degree of personality disorientation. So it is important that the learning environment, as well as providing stimuli to challenge growth, also provide personal support for the student. Here many small liberal arts colleges may have an advantage, since supportive faculty-student relationships tend to be more available there than at large universities (I16).

Another difficulty is that there are many factors in operation which tend to inhibit development. Some the college can do something about, but

some are beyond direct intervention. Pressure to conform from curriculum requirements, from faculty or peers is one such factor, suppressing individual growth patterns and leading to debilitating passivity. Overspecialization may inhibit the student's development as a whole by providing him or her with a refuge from challenges. Inappropriate teaching methods, particularly those stressing simple recall and discouraging independent analysis and evaluation, can lead to frustration and passivity. Further, some characteristics of an institution may inhibit development. Some independent colleges have relatively homogeneous student populations, with many students coming from a similar background, geographic region, and ethnic group, and sharing similar motives and perspectives. Such homogeneity may result from a rather understandable tendency of students to pick a college that will reinforce rather than challenge personal characteristics (I10; A6). So a disadvantage of a small college may be a relatively narrow environment, which the college should seek to compensate for (I16). If students in church-related colleges interpret religious faith as a guarantee of personal security, a kind of complacency which can short-circuit the process of development can result. But all these factors are to some extent within the control of the institution, and so they do not present an irremovable obstacle to growth.

Some obstacles place the college in an adversary position relative to the prevailing culture. Some cultural assumptions, such as the work ethic, the myth of progress, consumerism, and the success mystique (i.e., "making it big" financially), tend to turn a person away from any real concern for personal development. Challenges to personal growth may be viewed as annoying distractions to a person with a narrow career orientation. The problem there, however, may simply be one of mismatching developmental stages.

Chickering notes that one who seeks education as a means to obtain concrete effects like money and status tends to be at the lower developmental stages labeled "opportunistic" and "conformist," whereas one who seeks education for self-knowledge and self-development tends to be at the highest, "autonomous" stage (G27). It is difficult to see what the institution can do in the short term for such a student, beyond meeting him at his developmental stage and attempting to foster some growth. In the long run, however, educational institutions may find here a real challenge to contribute to the development of society as a whole.

Finally, developmental theory has a weakness in that its application to general education tends to reduce the entire curriculum to a function of the self. As a result, one might begin to study history primarily to see examples of decisions made at one or another stage in ethical development and draw a personal moral. The intrinsic value of the study, as stressed by classical Liberal Arts, is subordinated; the wider context of life tends to be subservient to the self.

The goals of general education reflecting personal dispositions, then, lead us to consider the process of development, to stress a manner of teaching which meets the needs of individual students and which facilitates development, and to note factors in the learning environment which can aid or hinder personal growth.

C. Skills

Classical Liberal Arts education in the past assumed that education produced cognitive, affective, and social skills valuable to the person and to society. The current competency approach to education--called "competency-based education" or CBE--differs from the classical orientation primarily in

making the expected outcomes of education explicit and in attempting to verify them by some relatively objective means. Further, the liberal arts are understood not only as a group of disciplines but also as a set of tools and processes designed to develop specified mental skills (G8). Since the resulting skills are of primary importance in this approach, it suggests flexibility regarding curriculum content as long as the goals are achieved.

The challenge undertaken by competency-based higher education is first to define the outcomes of education in a way specific enough to enable objective measurement of their achievement or nonachievement, and then to devise evaluation techniques adequate to the task of measuring cognitive skills, breadth of awareness, and responsible citizenship.

Competency-based curriculum design is commonly used in teaching basic skills, sometimes called "compensatory education" (A21). However, a few small liberal arts colleges have attempted a competency approach to the entire curriculum. These colleges (Alverno, Sterling, and Mars Hill) specify as broad competencies the expected outcomes of learning, and provide clear criteria by which the student can demonstrate competence in each specified area at each specified level (E1).

Evaluation in such programs can become a problem. The tendency is to designate the traditional course grade as a measure of competency. Then the competency model begins to appear simply as a new packaging for a kind of distribution requirement system rather than as a real alternative.

The compentency-based curriculum at Alverno College specifies eight areas of competence and six levels of competence within each area (E7). The eight areas of competence or the "outcomes" are "effective communications ability, analytic capability [logical thinking], problem solving ability, facility in forming value judgments within the decision-making process,

effective social interaction, understanding of individual/environmental relationships, understanding of the contemporary world," and "educated responsiveness to the arts and humanities." All students must progress through four "general" levels in all areas, and through two additional "specialized" levels in one area chosen by the student. In the area of analytic capability, for instance, the student must first observe elements in, say, a short story. Next is inference. The third level calls for relating inferences into patterns. The fourth and final general level consists of integrating those patterns in order to form overall conclusions. The specialized levels of analytic capability call first for analysis of more complex works, for testing various methods of analysis, and for critical evaluation of one's own procedures. The sixth and highest level calls for a major independent analytic project designed and performed by the student, and for the justification of that project to others. Evaluation procedures are designed by teams in each area, composed of faculty, some students, and even persons from the larger community.

The Alverno program is still quite new, and it is not yet clear how essentially its program differs from a distribution system, or how effectively it works as a model for Liberal Education.

A hazard of some competency approaches is that of reducing liberal education to the measurable, of clinging to rather mechanical methods of evaluation because of their supposed objectivity rather than taking the risk that the professor's personal judgment entails. The consequent tendency toward evaluation stressing recall and simple application runs counter to the need for more advanced modes of learning emphasized by developmental approach (G27).

Competency-based principles apply primarily to cognitive skills demonstrable within the college curriculum. The two skills given special emphasis in Part II--taking civic and social responsibility and ability to adapt in a changing future--are more difficult to demonstrate. The latter skill, adaptability, may be demonstrated within the Alverno program particularly through the independent responsibility called for in level six of each area (E7).

But taking civic and social responsibility, as a goal proposed by an institution for its students, raises a further question. To some extent, such responsibility may be demonstrated through field experience such as that required at Alverno in the specialized levels in the areas of value judgments and social interaction, or such as that required in some professional programs.

But to the extent that the college would seriously bring its students toward this goal, the college would be assuming a definite stand toward society--the role of change agent. While not necessarily advocating any ideological stance (most colleges would likely embrace quite a variety of possible stands), the college would encourage a constructively critical attitude toward the surrounding society and culture. There is a healthy tension which can exist between educational institutions and the mores of society. A college can be a locus of creative stability: it can preserve tradition without rigidity, and it can call for change without introducing chaos. Encouraging students to accept responsibility in their community and in their world would be an appropriate expression of a college's role as change agent.

Competency-based principles of design, then, direct our attention to the definition of specific objectives for the curriculum and for courses,

and to the development of adequate mechanisms for evaluating students' performance in relation to those objectives. They focus on students' doing significant tasks, usually within the curricular structure, but not necessarily limited to that.

D. Relating Liberal Education and the World of Work

Relating liberal education and the world of work is a goal of particular importance now with the increasing vocational orientation of the current student population and with the ever more dramatically felt need for the values of liberal education in contemporary society.

In relation to the structure of general education, this goal has implications general and specific. The general implication touches the links between the educational experience and what is sometimes called the "real world." The specific implication touches the relation of liberal arts and general education to the professional career programs within the college curriculum.

1. Liberal Education and the World of Work

The image of academia as an "ivory tower" reflects a criticism that the liberal arts are disengaged from the realities of life in the world. The relation of liberal education to the world of work is a serious enough question to merit a chapter in the Carnegie Foundation's Missions of the College Curriculum (A6), but the new Harvard curriculum (G23) does not seem to address the question at all. This may be a serious omission.

A student's career decision is of critical importance for his or her future, and that not only for the obvious reason of practical survival. In our society one's occupation is a very significant factor in establishing personal identity. That suggests a relation of career choice to goals of

liberal education other than the development of useful skills.

Perhaps a new look at the meaning of "career" can make clearer the relation of liberal education to career than simply "gainful employment," and so include all aspects of a person's productive life seen as a whole whose meaning reaches beyond the scope of professional preparation and calls for preparation for effective living. Liberal education can develop the capacity for richer satisfaction, not only in leisure time but in work itself (J3). A trend noted by Daniel Yankelovich and Ruth Clark (I24) shows an increasing desire among young people for interesting as well as lucrative work. This consideration suggests a need for integrating the goals of liberal education and students' career goals.

Links between liberal studies and career are readily evident, particularly in relation to the expected outcomes of learning. Mental skills--communication, computation, analysis, research, evaluation and the like--will serve well in any career. Further, personal development that occurs through education should produce a sense of competence as a person and a sense of confidence in one's judgment.

Since such links are already evident, it should be clear that "relevance" to the world of work need not negate the goals of liberal education, as some may fear (G8). Arguments subordinating liberal arts concerns to careerism, or denigrating career in the name of liberal arts have an assumption in common: they do not recognize the clear contribution liberal arts makes to career preparation, and indeed the contribution a career orientation can make to liberal arts education. The possibility of that mutual contribution suggests a more careful look at the relation of general education to career programs within the college curriculum.

2. General Education and Specialization

A tension between specific disciplinary orientation and general orientation seems to be a constant among faculties and students. It may be true that one's discipline provides a model for understanding the entire world and so a kind of narrowness may result. In that case, the need for communication outside one's discipline, and perhaps for interdisciplinary cooperation among faculty, becomes clear. Often, however, the tension is simply one of time: time devoted to undergraduate teaching in conflict with time available for research on the part of faculty, time or number of courses required for the demands of a professional major and its support courses in conflict with time available for courses--electives, perhaps--outside the major.

The drastic reductions in general education requirements that occurred in the late 1960s resulted not in an increase in electives, as the rationale for those reductions anticipated, but in an increase in the demands of many professional major programs. The motivation behind that development was presumably laudatory--the better preparation of students for success in their chosen careers. The indirect effect was the quantitative reduction of the liberal arts in the curriculum of many colleges, sometimes reduction of staff and budget.

In response to such pressures to reduce liberal arts in favor of career programs, it is not enough simply to assert once again the intrinsic value of the liberal arts. It is more appropriate to ask if concentrated professional training is really an adequate preparation for students' future careers. Many of our students may modify careers several times within their lives. They enter a future in which a large portion of the jobs they will hold do not yet exist at the time of their graduation, let alone the time

of their appointment with advisors to choose a major. Colleges must prepare students to be flexible, or their students risk early obsolescence.

In this context, a liberal education should provide for adaptability and flexibility (J32), and breadth of education is as great an assurance of success in a career as specialization (J18). Career education, then, if it is to be adequate to the future, should provide the student with a capacity to analyze a situation and perhaps identify a new kind of work, a capacity to deal constructively with new and changing situations.

It would seem then, that career education should be liberal in character (J4). The relation of liberal education and professional preparation then is--or should be--one of integration and interdependence (J23). The liberal arts of general education curriculum contributes in an essential way to career preparation, and is not something to be "gotten out of the way" before the student's "real" study begins (J18).

A further contribution of liberal education to career programs has to do with the growing recognition that professionals in all fields must deal with value-laden issues. To deal effectively with values some foundation in the humanities is needed (J11). Persons must deal with those issues outside the confines of professional practice as well. If "career" is to be defined to include all aspects of a person's productive life, so education for responsible citizenship is essential to career education (G8).

A reciprocal contribution can be made by career education to the liberal arts. The goals of liberal education are seldom attacked. But critics do wonder if those goals are ever achieved for students (J31). Education should be practically useful (J3). It is good that colleges raise questions for the student, but do they encourage students to seek answers (J23)? Practical

application of skills is needed as a part of general education, within or outside of the curriculum. Liberal education, then, should include both theory and practice, both study and application (J23). It is an open question whether general education should include an experiential component like the field experiences provided in professional programs (G40).

The goal of relating liberal education and the world of work, then, directs our attention first to the need for applying liberal arts themes and skills to the practical world, and then to the links between Liberal and professional education. This goal then suggests that we dismantle the barrier which frequently divides such disciplines and stress cooperation and overlap among them.

Conclusion

The several goals for general education, when viewed as principles for designing curriculum, are complementary rather than contrary. The goal of knowledge focuses on the subject matter being taught, on its relation to the human cultural heritage, on the ways of structuring knowledge, and on the integration of knowledge across disciplinary lines. The goal of personal dispositions focuses on the manner of teaching and attends to the student as a whole person and to the environment in which the student is to develop. The goal of skills or competencies focuses on the definition of the objectives or outcomes of learning and on methods of evaluation. The goal of relating liberal education to the world of work focuses on the links joining knowledge to practical life, and the links joining the liberal arts and specialized majors.

The question in designing curriculum for general education is not, then, which of these we choose as a model for our programs, but how can we best

achieve an optimum conbination of these goals?

There will be some points of conflict among these goals as structuring principles. So, for instance, the attention to individual engagement with vital issues called for by a developmental approach may reduce the amount of information that can be effectively transmitted in a course. Or the stress on definition and measurement called for by the competency approach may conflict with efforts to develop intangible personal growth and insight. But these conflicts are not at the core of the issues, but rather at the edges.

Efforts to design educational programs, therefore, should aim at an optimum mix or workable combination of elements of curriculum to achieve what is most desirable in each area.

Part IV will suggest more specific possibilities.

IV. Planning General Education Programs

General education curricula for small, private liberal arts colleges are composed from a limited set of variables. The curriculum is usually divided into major programs, General Education programs, and electives. Each component is composed primarily of courses. Courses are composed basically of content, methods, and evaluation. These provide the basic elements for constructing a curriculum. Some additional elements, such as credit for life experience, CLEP, etc., must be taken into account in planning, but at least at this time courses are the building blocks of curriculum in the colleges participating in this study.

Focusing on general education programs, we will first discuss varying requirement structures and organizational plans. Then we will consider methods and evaluation in relation to general education programs and courses, and finally, the context of general education, particularly its relation to other components of the curriculum.

A. General Education Structures

1. Basic Options

In planning a general education program, the college may choose from among the following options:

1. Individually designed programs approved as leading to general education goals.

2. Distribution requirements in greater or smaller numbers with more or less specificity and with more or fewer options.

3. Required "Core" courses, often interdisciplinary.

4. A combination of options 2 and 3.

Let us examine these options.

Individually designed programs. This is the most liberal option in terms of student freedom to choose. Employed widely today in our colleges, this system was adopted for the most part during the era of student unrest in the late 1960s and emphasizes student participation in determining their academic programs. The program has been and continues to be justified on the basis of freedom, and on the basis of a recognition of the pluralism that exists in our colleges, a pluralism especially evident in the new kinds of students seeking higher education. Such a "open curriculum" depended for its success on motivated students, perceptive administrators and insightful faculty advisors.

A decade later we see even the most optimistic of the supporters of the "open curriculum" worried or disenchanted, and some faculty people are openly hostile to it. Critics observe that this system has contributed largely to the decline of many of the traditional liberal arts disciplines, to the elevation of "relevance" as the major criterion of a study's worth, to faddism and a kind of academic Gresham's law in which the bad courses drive the good ones out. The result, according to Jacques Barzun, has been that our colleges have been turned into academic cafeterias offering junk food for the mind. That all of this may be true is not necessarily, however, the fault of "unstructured" college education. If students were more academically motivated, if administrators were more responsive to the needs of the faculty, and if faculty were doing a first-class job of advising, the system might very well work. But in most places it has not.

Distribution Requirements. The principal object of distribution requirements is to ensure that students experience some breadth in their academic programs. Such requirements are intended at least to expose students to the content, traditions and methods of the major divisions of learning, however

they are identified.

Further, because many of our students have not determined their major field of concentration when they enter college, the distribution requirements permit them to explore a number of fields before making their decision about a major.

It is possible that a set of distribution requirements can provide a common learning experience for students, but the more options available to the student, the less likelihood that such commality will exist.

Some colleges are quite specific and restrictive in their designation of distribution requirements. A few designate every course in the General Education area; some specify a few courses and allow options in others; still others may allow course selection among dozens of options. Where the student population is heterogeneous, especially in academic ability, a fairly broad selection is in order. But too broad a selection may suggest superficiality and a lack of coherence.

Most courses available to meet distribution requirements are regular departmental offerings in each discipline, usually the freshman "principles" or "survey" course. In some cases departments create special courses for non-majors who are meeting the requirement, but some faculty deplore what they see as a tendency to "water down" courses for general education purposes. But if the goals of general education are different from those of the major, it makes sense that an introduction to the major may not be appropriate for the general student, not because of a difference in difficulty, but because a general education course should not be specialized, but should relate to the larger context of learning and should lead to critical reflection on the process of learning. The content is not at issue; the objectives of the course are at issue.

Another aspect of distribution which seeks to limit over-specialization is sometimes stated negatively: e.g., students may not take more than one-half or perhaps two-thirds of their work in the division of the major, no more than one third of their work in the department of the major itself, or no more than one course per department during the student's first two years (Sarah Lawrence).

Some distribution requirements are so timid as to make few demands on the students. Some are so loose that the requirements are easy to evade. All run the risk of the student's program becoming a kind of smorgasbord.

Many faculty like distribution requirements because they can continue to work within their discipline, rather than in an interdisciplinary core. They believe, or profess to believe, that it is the student's task to make connections and integrate the various disciplines represented in the general education program. To do the integrating for students would be to "spoonfeed" them.

Required "Core" courses. Many colleges have a course or a limited set of courses required of all students as a backbone or "core" for the general education curriculum. These "core" courses are intended to provide a common learning experience for all students, and a common reference point for the rest of the curriculum.

Such "core" courses can be in a particular discipline, probably an integrating discipline such as history. Often, however, the "core" courses are interdisciplinary.

According to Daniel Bell, it is the interdisciplinary "core" program which has generated the most excitement (A2). Many institutions have experimented with one or more versions of it, and in a few it represents a time-honored part of undergraduate education. The interdisciplinary "core"

program attempts to assist students to integrate learning by bringing together a number of disciplines into one or more "core" courses.

Such courses have occasionally been taught by the "lone lecturer" or "great man" who is both competent in and dedicated to interdisciplinary education. Such persons are hard to find.

It is much more common for such courses to be team-taught, combining lectures with discussion sections. All faculty involved in an integrated course must meet frequently to discuss approaches, methodology, content analysis, evaluation, and problems encountered in the courses. Such interaction on the part of faculty is one of the principal advantages of an interdisciplinary program. It is also one of the most difficult things to achieve.

Some of the interdisciplinary "core" programs are organized around major themes such as "Man and Society," "Man and the Environment," "Self and Order," "Values and Change," all of which tend to draw most heavily on the Humanities for their sustenance. Other programs take up major contemporary problems: "How We View Ourselves and Each Other," "Individual and Social Consequences of Sex Roles," "Coping with Uncertainty," or "Pathologies of Industrial Society." A few programs have dealt with alternative world views (Judaic, Christian, Muslim, Far Eastern, Marxist, Modern Liberal), although these have tended to ignore the natural sciences. The most successful, it would appear, have been organized about major historical eras: the classical, medieval, Renaissance, enlightenment, industrial, and contemporary. Perhaps the success of historically-organized courses is related to the need in interdisciplinary courses for an easily recognized base line or principle of organization. History is an easily recognized base line, and is less contro-

versial or tied to the perspective of a single discipline than some other unifying themes.

However they have been organized, interdisciplinary "core" programs have had a checkered career.

It is instructive to note that some of the apparently most creative of these programs were adopted at colleges that subsequently abandoned them (Wisconsin-Green Bay, University of California at Santa Cruz). Yet they do flourish at Stanford, Columbia, St. Joseph's (Indiana), Reed, and at many other institutions. Indeed, at St. John's in Annapolis the interdisciplinary "Great Books" program survives as the fully prescribed education for undergraduates.

At the risk of appearing pessimistic about the viability of such programs, it seems appropriate to list some of the persistent problems that beset interdisciplinary "core" courses.

1. Staffing a large number of sections in a small college is a real problem. Some faculty members simply don't want to teach in such a program, and many who do cannot sustain sufficient interest to teach in it over several years.

2. Many faculty members are inadequately prepared to cope with a course that reaches outside their discipline. Faculty development may be needed.

3. Too many institutions (especially larger universities) do not reward interdisciplinary teaching, however good, with promotion or tenure or salary increases. Appropriate rewards would have to be considered in planning the program.

4. Faculty, even if willing to participate, are often so discipline-oriented that they cannot function adequately in an interdisciplinary experience. We have too few generalists who can integrate.

5. What passes for team teaching is often really what one observer has called "turn" teaching, each faculty person taking his "turn" in the classroom.

6. It is expensive, in time and money, to mount a good interdisciplinary program.

7. The courses sometimes permit very important matters to be treated superficially.

8. Great variations in student ability and preparation make it difficult to present interdisciplinary courses, especially at the freshman level, for many students lack the background or ability for integrating ideas.

9. The intense career orientation of some students tends to make interdisciplinary courses appear irrelevant to students' needs and desires. In response, some colleges offer interdisciplinary "cores" which focus on current problems (J29).

10. In order to guarantee respectability for the interdisciplinary course, faculty often load far too much work on students, which helps ensure the unpopularity of the course. Again, faculty re-education may be needed, at least to bring about an understanding of the nature of interdisciplinary study.

Yet, in spite of these problems, colleges continue to experiment with interdisciplinary "core" courses. Most of the problems, after all, are not inherent in interdisciplinary programs as such. The problems suggest rather that a college must be willing to make a serious investment, in time, faculty preparation, and motivation, if it wants an effective interdisciplinary course.

As an antidote to pessimism, it seems appropriate to list some suggestions that have contributed to the success of interdisciplinary "core" courses.

1. Courses to be team-taught are best designed by a committee rather than by a single faculty member, lest one discipline dominate the orientation of the course and lead to difficulty or discomfort for faculty in other disciplines.

2. Successful integration depends on faculty interaction. Hence there is need for a mechanism by which faculty members regularly share insights, problems, and the like.

3. A clear, easily recognized base line is needed as the principle by which a course is organized. Students need to see that base line as well as faculty members. Further, the principle must lend itself to division so that team-teaching can function without overlap or confusion of tasks. History appears to be the most effective principle.

4. Interdisciplinary teaching takes time. Time should be built in for participating faculty. Such a provision is made at Sarah Lawrence and at Evergreen State College.

5. Problems usually occur when the interdisciplinary "core" is the only General Education structure. A combination of interdisciplinary "core" and limited distribution requirements tends to work better.

2. Some General Education Structures.

Combinations of Interdisciplinary "Core" and Distribution. The University of Florida has developed a general education structure called "Humanities Perspectives on the Progessions," which has a "core" of interdisciplinary courses addressing critical problems confronting the various professions. These course provide for integration, and as well address the relation of

liberal arts to the world of work. These core courses are complemented by a second tier of courses which explore topics in particular disciplines. This program is designed for selected students, and is only one way of approaching General Education at the University of Florida (J29).

The University of Denver concentrates its "core" on a single culture at a time of high creativity (F5), using history as the base but concentrating more specifically than, for instance, the Columbia "Contemporary Civilization" course (A1). A different sort of combination of distribution and interdisciplinarity is the Brown "Modes of Thought" program, where students are encouraged to select from among courses like "Visions of Life in Literature," "The World of Objects," "Modes of Representation," or "Animal and Human Communication Systems," These courses are taught to small groups, and often use a seminar method (D5). A useful survey of interdisciplinary programs has been compiled by Elizabeth Bayerl (F5).

Distribution systems vary in terms of the degree to which requirements are specified, and in terms of the way disciplines are grouped into categories or divisions. The new program at Harvard presents five "core" areas--literature and art, history, social and philosophical analysis, mathematics and science, and cultures--and stresses course objectives rather than content, using the content of a course as a model for a type of learning (G23). The University of Florida distribution component focuses on current topics or problems within particular disciplines (J29).

Competency-Based Programs echo distribution programs in that areas of competency are defined in a way resembling the groupings of disciplines. Programs at Sterling College (Kansas) (E10) and Mars Hill College (North Carolina) show such resemblances.

However, the eight areas of competence in the Alverno program (E7) described in Part III cross disciplinary lines to a greater extent. The abilities defined may be developed in a number of disciplines. Further, the area of "effective social interaction" appears to be a matter of personal action and reflection with only a slight disciplinary content (sociology). Finally, the "specialized levels" stress independent learning outside the classroom.

B. Method

A relatively new emphasis among planners of general education curricula is the method of teaching. The developmental approach to education indicated that teaching method is a critical part of the "matching" of learner and learning experience that is critical for effective teaching.

A developmental approach to general education calls for relatively minor changes in the content and basic structure of the curriculum, but it calls for changes in learning activities and the arrangement of areas of study in a course (G27). For this approach, classroom dialogue is preferred to a lecture system in which the student remains passive. Learning activities designed through teacher-student interactions, such as contracts for learning, are preferred to those designed solely by the teacher. Experiences which involve the affective domain are preferred to textbooks, lectures, and exams requiring memorization and simply application.

Probably the best articulated developmental approach to general education is the experimental ADAPT program at the University of Nebraska at Lincoln (D1). The program focuses on method, particularly on gearing learning experiences to the developmental level of students and to the pattern of the learning process. So, for instance, the teacher is advised to begin with materials that are meaningful to the student. Then learning experiences are to be designed to

correspond to three phases of a learning cycle: first is exploration, observing and collecting data on a particular issue seen as a model for the field of the course; then comes invention, forming hypotheses in an attempt to organize the data; finally comes discovery, the identification of key concepts and seeing them as a basis for generalization to other issues in the field. In this sort of learning design, students begin with the concrete and proceed to greater sophistication and abstraction. Students' own thought processes guide the search for knowledge, and the student is called upon to become involved in the act of learning.

While this method-centered approach to general education poses fewer apparent risks than the constructing of interdisciplinary "core" curricula, hazards are far from absent. First and most evident is that development occurs in individuals: hence locating the beginning point of a course for a group means identifying a sort of composite developmental level, or turning to individualized instruction. Next the teacher finds his role changed. Rather than acting as one pole in a basically dipolar relationship of teacher and learners, he is the designer of learning experiences through which a group progresses in an essentially multipolar relationship. The teacher's intervention in the learning process is deliberately reduced--only to prevent aimless and so counterproductive exploration by students. It may be difficult for teachers to relinquish control to that extent. Finally, allowing students time for exploration means that there is less time available to "cover the material." A conflict can arise between the goals of development and the goals of imparting knowledge.

Another aspect of method seeks to induce the "creative tension" that provokes developmental change (D1). This tension is particularly relevant

to value education, and its successful use in a college environment may well determine how well a college fulfills its task as value educator. Students' accepted ideas and values can be challenged in numberless ways, most often perhaps by peers and outside the classroom. The teacher, however, must be cautious when deliberately introducing such a challenge. Direct, personal confrontation of a student with a challenge to his value system is out of place, partly because it assumes the student is ready for such a challenge, and partly because it assumes the teacher is a competent spiritual surgeon. Challenges should be raised, but raised in the detached, objective way typical of the academic. Then the student is invited to grow on his own terms, and his autonomy is respected.

Students need support when undergoing this kind of conflict. Hence a teacher must seek to build a relationship of trust and confidence with his students. If that trust is missing, students are likely to refuse the invitation to grow that the teacher intends. Further, the teacher is at least theoretically the model of higher-stage thinking that, according to developmental theory, helps induce development. The teacher must therefore be willing to reveal his own uncertainty and to show he can live with process, with ambiguity, with the tension that induces development. Moreover, the teacher must be willing to respond frankly to questions concerning his personal values and how he deals with such conflicts in his own life.

Clearly the developmental approach to method closely relates to the goals of initiating a process of inquiry, of liberating students from parochialism, and developing in them a tolerance for ambiguity and an appreciation for multiplicity. One set of programs which combines experiential learning and the development of such tolerance and appreciation is established at Northwestern University (J7). Some field internship programs in professional fields have

been designed to fulfill Liberal Arts goals, particularly through two processes based on developmental psychology: "reciprocity" and "decentering." "Reciprocity" calls for sharing and communication--active and cooperative. "Decentering" calls for becoming aware of more than one perspective on a given issue than one's own and for being able to apply multiple perspectives. This program stresses close student-teacher relationships, experiential learning (linking education and the world of work), student responsibility in decision making, and interdisciplinarity.

C. Evaluation of Student Performance

Methods of evaluation--grading--produced the most dissatisfaction among students in surveys reported in the Carnegie Commission's Missions of the College Curriculum. Even among students generally satisfied with their colleges, dissatisfaction with grading was registered.

The group of Iowa college faculty represented in this report registered similar dissatisfaction, and so discussed possible alternatives at some length. After all, the goals of liberal education appear to be compromised if the student has the primary goal of maintaining a 3.8 GPA.

There are basic alternatives to grading: variations of the pass/no pass option, replacing transcripts with dossiers, and learning contracts in which the individual alone is the norm.

The pass/no pass option is used to reduce concern for grades, and to encourage students to explore new fields of study they might avoid for fear of risking their GPA. In some schools, such as Brown (D5), a "no-pass" evaluation is not even recorded on the transcript, producing a "Pass/No Entry" option. At many schools, a strict limit per term and total is imposed on

the option. The weaknesses of this option, however, become apparent when the relation of the college to the world of work is considered. According to a study at Concordia College (L2), corporation personnel managers and deans of graduate and professional schools definitely dislike the Pass/No Pass, for it gives no real indication of the performance and capability of the student. When institutions use the Pass/No pass, the GRE or other objective measurements of achievement increase in importance as far as employers and graduate schools are concerned.

Dissatisfaction with the impersonal, stark letter grade led to proposals for methods of evaluation tailored to the individual person. One aspect of that aim is to reduce the importance of grades in students' minds, and to encourage forms of intrinsic rewards and self-evaluation. But graduate schools and corporations want some kind of objective standard of student performance and aptitudes. Hence the option of student dossiers rather than transcripts arises. Brown University combines grades and "Course Performance Reports" and "extensive and multifaceted discussion of performance" which a student may request for a course and which he may choose to be included in his external record or not (D5). The disadvantages to such a system are apparent as soon as one tacks the writing of such extensive and multifaceted discussions to the already backbreaking teaching load of faculty in colleges like those represented by this report.

If the important thing in a course or in a college education is how a student develops within the program and not how he fits into some artificial normative scale, however widely used, then an option arises in which the student himself is the only norm for evaluation. Contracted Learning provides an appropriate context for such evaluation. There, the student in consultation

with faculty designs his own course--or program--setting his objectives and the criteria for meeting them. Evaluation then is built into the program designed by the student, and has no reference to a norm outside it. The dossier that becomes the student's external record then must contain not only evaluative comments by teachers on performance, but a clear description of the content, procedures, objectives and criteria of the student's individual curriculum. Two difficulties were noted by the group. First, if the student's transcript consists simply of a record of what he has done, what does it mean, particularly to the personnel officer or dean, who wants to evaluate the student in relation to others? Second, there is the ludicrous possibility--one that occurred at Fordham's now defunct experimental Bensalem College--that a student may contract to do virtually nothing at all, succeed admirably in that, and thus fulfill the requirements of the college. Then not only the transcript but the degree itself is in danger of becoming meaningless.

The competency approach to education suggests a further possibility for reducing the grade-consciousness of students. For if competency is clearly defined, and if the evaluation of competency is given over to an agency other than the teacher, then teacher and student become partners in competition with the evaluator. The present grading system, by contrast, gives the teacher the possibly conflicting roles of partner and objective evaluator--accounting for some dissatisfaction among faculty. The Oxford system, where teachers guide learning and evaluation is conducted through examination by the institution, operates on such a pattern.

And finally the goal of integrating knowledge suggests a possible way to call forth such integration--the comprehensive examination, not only in the

major field but in general education. The comprehensive is a clear indicator that students are given a cumulative responsibility in their education to put things together, and not to close books and minds once a course ended. The devising of comprehensive examinations in general education becomes a problem. What should be included? Where the general education curriculum is prescribed according to content, the base for such an examination is clearly given. Or if the faculty can agree clearly on the essential content of general education, a base is given. But neither is the case in most colleges at this time.

But for an effective general education curriculum, there should be agreement at least on what the curriculum is trying to accomplish: its goals, in other words. And if the goals can be defined, it would appear in principle that a comprehensive examination can be devised.

D. General Education and the Remainder of the Curriculum

General education is one of several components of the curriculum, one of several elements in the student's learning experience, and potentially one of several competing forces for student time and for institutional resources. Electives and the major are two other principal components.

1. Electives

In effect, the option for general education called for "free elective" system reduces the curriculum to two components: major and electives.

Clearly there should be room for course choices based on student preference and not motivated by other institutional demands (other than the total number of hours required to graduate). But in general education, some integration, some commonality, and so some definite requirements are in order, and fragmentation is counterproductive. There is place for freedom, for exploration, and

even for some amount of fragmentation in the elective component of the curriculum.

In designing curriculum, therefore, some room for electives is necessary. The "negative distribution" system described earlier, limiting the number of courses a student may take in the major department or in the major division, would protect the elective component.

The principal threat to electives currently is not likely to be the general education requirements, but the tendency of major departments--particularly in the late 1960s and early 1970s--to move into the vacuum created by reduced general requirements and to demand an ever-increasing number of courses in the major program and courses outside the major required as "support courses." If the major does occupy so much of the student's time, there is a danger that the college will produce overspecialized graduates, the "technically competent barbarians" which C. S. Lesis railed at (A23), and so fall well short of the goals of liberal education professed by all the colleges represented by this study.

2. General Education and the Major

In the past it may have been the case that the general education or liberal arts program was at the core of college education, and the major an addition to it. Currently, particularly with the decrease in required general education courses, the center appears to have shifted to the major. Probably in the experience of undergraduates, it is the major for which they come to college, it is the major by which they identify themselves, and it is the major which occupies the bulk of their time and attention. General education appears to have shifted toward the periphery; even, in some institutions, to have been dropped altogether as an important part of the students' education.

This tendency may be unfortunate (beware the technically competent barbarians!), but it appears to be the case. How should a college deal with it?

Two complementary directions can be taken to ensure a liberal education to current major-centered students. One is to develop the major programs themselves so that the goals of liberal education will be sought in the courses of the major. Major programs in humanities and in social and behavioral sciences quite often do seek such goals quite consciously as well as the goals of competence in the particular discipline. The major can contribute a particularly thorough, in-depth encounter with a field of study. But the methods appropriate to liberal education are not out of place in most major programs, and indeed the goal of integration--making connections between the discipline and other fields of study--can be achieved to some extent within a major.

But if the major department considers itself in isolation from the overall goals of liberal education, the results can mean a significant departure from those goals by the institution. First, if the major--professional or otherwise--places itself so exclusively at the center that students are advised to "get the general education courses out of the way" and then concentrate on the major, that is an indication that the institution has <u>in fact</u> turned away from a mission of Liberal Education, and the general education component of the curriculum has been cast in the role of a set of hurdles, meaningless in themselves, to be jumped with as little energy as possible. A further unfortunate result of such isolation of the major occurs if the general education program is a distribution system of courses for which the major departments have sole responsibility. Then the tendency is for the general education courses to be simply introductions to the major discipline, and to lack elements appropriate to general education such as integration with the larger context and reflection on the process of thought (I8). Note the stress on <u>objectives</u> for courses approved for general education at Harvard (G23).

If the major field of study and general education are understood as complementary and not competitive, however, another question arises. If the goals of liberal education are developed in the major, can the major then ask that general education serve its goals? Most colleges are accustomed to having general education courses develop basic competencies required by majors: writing, communicating, and mathematical skills. Can the major specify which of several options in general education its students shall take? Clearly that would be impossible if a specifically required core is the primary general education program. But just as clearly it will happen with a distribution system.

One suggestion to enhance the liberalizing effect of the general education component vis-a-vis the major is to design the general education program so that the academic stress of the major will be counterbalanced by general education. In effect, general education is designed around the major, an approach suggested in the Muscatine report (A41). So, for instance, a major in natural science would have the science component of his general education reduced, and perhaps the literature or art component proportionately increased. The objection to that suggestion is that the major department often relies on general education to take in a small portion of its required or background courses, so that the suggestion would increase the total number of hours required of a student. Note, however, that the rationale for the suggestion is based on the goals of liberal education, while the objection is based on somewhat narrower concerns.

3. General Education and Compensatory Education

Students in colleges today tend to come from a broader section of the population than students of fifteen years and longer ago. Hence compensatory education is often needed. Here competency-based education has a rather

extensive application, for the challenge to compensatory education is to bring students with a variety of backgrounds to an entry level of academic skills which is rather readily measurable.

The question is whether such compensatory education belongs within the general education component, or even if it belongs at the college level. Five alternatives are possible: 1) include compensatory education in the general education program and provide a test-out system so that students already at entry level of competence can increase electives; 2) give college credit for compensatory courses but do not include them in general education, thus decreasing electives for the student concerned; 3) give college credit for compensatory courses but increase the number of courses required for the degree; 4) give college credit for the courses, but credit which does not count toward the degree; 5) to offer compensatory courses on a noncredit basis.

The group did not choose a best alternative, but noted that the values involved in such a choice concern a) acceptance of variety among students; b) maintenance of the quality and calibre of the institution's degree; and c) practicability for students attempting to become educated.

Conclusion

The task facing a college which tries to design a general education program, then, is to work with the limited variables of courses--content, method, evaluation--within the curriculum as a whole in order to produce a mix of elements that will optimally achieve the college's goals of Liberal Education.

The actual program designed, therefore, will be as individual as the institution itself. Programs noted in this report can suggest directions for

college curriculum planning, but they cannot provide ready-made general education curricula that can simply be adopted by a college.

V. Implementing Changes in General Education

Designing an effective general education program may not be the most difficult task facing a college hoping to change its curriculum. The program must gain acceptance among administrators, faculty, and students, and it must be effectively put into practice for it to succeed.

1. Suggestions for Planning and Implementing.

Program designs which call for extensive changes in courses or in staffing stand a much poorer chance of gaining acceptance, no matter how fine their theoretical base. One may observe that the most radical of new programs are often implemented at brand new institutions. Another interesting observation, noted in the discussion of interdisciplinary "core" courses, was that often the most radical of new programs are soon discontinued.

Successful curriculum proposals, therefore, need to include an assurance to discipline-oriented faculties that the program will not undercut offerings in their disciplines. The proposal recently approved for Simpson College, as an example, called for no new courses (to the relief of faculty) and no new staff (to the relief of administration). Change is still possible within such limits, especially change related to competency or developmental goals, or related to requirement structure rather than course content.

One essential strategy is the inclusion of faculty in planning curriculum changes from the very beginning. The brainchild of one person, faculty genius or inspired dean though he be, has a poorer chance of success than programs designed "democratically" with broadly based and continuing faculty discussion and evaluation throughout the process of planning and implementing.

A representative task force of faculty, therefore, should be charged with planning. But that group must have adequate time if a viable proposal is to come forth. Release time or supported time in the summer is needed; the effort

to plan a new general education program by a committee of faculty who try to maintain the rest of their full-time duties tends to be futile. Hence if the institution is serious about general education reform, it must allocate resources to permit adequate time for developing a good plan.

Grant support is sometimes available for such an effort, and has the clear advantage of reducing strain on the institution's resources. But to the extent the implementation of the program is dependent upon external support, the program is in danger of deteriorating at the end of the grant period.

Once a basic program is designed and even approved, details remain to be hammered out and the actual tasks of teaching and implementing remain to be parceled out. Unforeseen problems can arise at this point, and if time is short between approval and implementation, strains can be felt and errors made. Partly for that reason, the Simpson proposal calls for a full year between approval and actual implementation. Another reason for building in such a time cushion is that students, particularly new students, should be informed about the general education curriculum before they apply for admission--otherwise they may feel that something other than what they bought is being delivered.

Major departments may become defensive in response to curriculum proposals for two reasons. One is that in distribution systems, courses taken to fulfill a general education requirement may also serve the purposes of the major. Tighter specification of requirements can mean one further course students in that major have to take. But that difficulty appears to be major department's problem, not that of the general education curriculum. General education programs should be designed to fulfill goals for general education; then if they can serve particular needs of major departments, so much the better.

The other reason why major departments become defensive is that some major programs expanded into the vacuum left by retreating general education requirements in the late 1960s and early 1970s. Expansion of general education requirements thus appears to be intrusion into territory now considered the major's own. A general guideline for evaluating a typical student's course distribution is: one-third major, one-third general education, and one-third elective. If major requirements exceed that guideline, the burden of proof should be on the major department. Another suggestion for regulating the major in relation to general education and electives calls for thorough justification, in terms of the goals of liberal education and college-wide approval of any major program that contains more than one-third of the student's college courses--over 40 hours, for instance, in a college whose degree requires 120 semester hours.

Such guidelines may not be practicable, particularly in relation to professional programs. But they serve at least to caution lest the college's goals of liberal education be comprised.

Most often changes in general education curricula mean a need for faculty retooling, at least in general education theory and methods. This need is particularly great where distribution programs are managed by the faculty in the disciplines, for there is danger that courses will degenerate to mere introduction to the disciplines and so miss the integration with a larger context and the reflection on the thought process characteristic of liberal education. Such retooling requires time and serious effort. A large block of time (a summer, for instance) of <u>supported</u> activity is needed for faculty involved in <u>teaching</u> the general education courses--if the college is seriously interested in a strong general education program.

2. Monitoring and Maintaining the General Education Program

If a general education program calls for course methods, objectives, and orientation toward the goals of liberal education, there must be some way of ensuring that the courses actually being taught in the program are faithful to those methods, objectives, and goals.

One effort to ensure that fidelity is to give the general education curriculum a center of responsibility independent of the discipline departments. Coe College, for instance, appoints a director of the general education program from among the faculty for terms of three years. A special committee or the college Curriculum Committee can take upon itself the task of overseeing the program. But the work of the committee would be educational policy, involving an ongoing effort to keep informed--not simply housekeeping.

A constantly maintained awareness of the goals of liberal education and their implications is called for, first, so that the proper orientation of the program will be maintain and second that proposed changes in curriculum (not limited to the general program) will be evaluated in the light of those goals. That awareness should be the responsibility of the committee or director charged with general education, and of the entire faculty as well.

Faculty interaction, formal (in interdisciplinary seminars, faculty workshops, etc.) and informal, is a major contribution to the success and integrity of liberal education. Perhaps faculty should be encouraged--even required--to audit one another's courses (A2).

An evident way to ensure fidelity to the goals of liberal education is regular evaluation of faculty teaching in the general education program. Regular evaluation and its attendant accountability can serve to raise the

consciousness of faculty to what it is they are about and to maintain a certain level of effort and a certain sense of relatedness to the larger institution. Approaches to evaluation of general education programs will be the subject of section VI.

3. A Suggested Guide for Decisions

General Education programs are tailor-made for the institutions in which they are to function. But the process by which they are tailored involves a high degree of decision-making. Information such as that noted in this and the preceding sections of this report can form a basis for decision-making. But the rules or principles by which choices are to be made should be made explicit in order to prevent the kind of difficulty noted in Part I: that decision rules which remain implicit are unavailable for critical examination.

A suggested list of considerations was developed in the group to guide the choice of components for a particular college's general education program. It will serve as a summary statement of considerations germane to this study.

Components should be chosen which will optimally:

1. Respect the nature of the institution.

   The general education program should be true to the institution's historical mission or current goals, and should reflect its self-understanding and identification.

2. Recognize and capitalize on the nature of the student population.

   a. Respect the general profile of the student population in relation to background, ability, and motivation;

   b. Provide for individual differences in the student population in these areas;

   c. Encourage interaction and mutual support among students.

3. Fulfill the specific goals of the program.

   Here the institution's interpretation of the goals of liberal education become the norm for choice.

4. Reflect the accepted principles of the educational process.

   a. Recognize the developmental stages and needs of the students;

   b. Provide for a variety of teaching techniques and settings;

   c. Illustrate the methodologies of the respective disciplines;

   d. Provide meaningful options for student decision-making (freedom);

   e. Be capable of evaluation.

5. Use and develop faculty resources.

   a. Reflect the breadth of expertise available;

   b. Demonstrate the depth of understanding of the specialist;

   c. Encourage effective student advising;

   d. Provide a context for outstanding teaching;

   e. Avoid or overcome faculty divisions and fragmentation;

   f. Reward faculty integration and cooperation.

6. Recognize the structural constraints of the program.

   a. Fill the established time schedules;

   b. Provide sufficient requirements to ensure some commonality of experience;

   c. Establish relationships with other elements in the curriculum.

7. Utilize and encourage administrative support.

   a. Require a budget for faculty staffing, facilities, equipment, and materials commensurate with that of other segments of the curriculum;

b. Be attractive for student recruitment;

c. Be easy to identify and record for registration and transcript purposes.

8. Meet requirements of external constituencies.

a. Satisfy regional accreditation associations;

b. Encourage the college's sources of support, both moral and financial;

c. Be relevant to the social needs of the community and the larger society.

VI. Program Evaluation

A problem for liberal education has consistently been that its goals defy measurement. In a society fascinated with the measurable, that flaw can lead to a loss of credibility--loss of appreciation for higher education as such, and even loss of appreciation for the kinds of values liberal education strives for.

Hence curricula designed for this particular time need to deal with the problem of evaluation. Not that liberal education should uncritically reduce itself to what is readily measured, but that some reliable modes of evaluation be developed appropriate to the kind of thing liberal education is.

General education curricula particularly need such evaluation, for the goals of general education are a bit less specific than those, say, of professional majors, the structure of general education programs is likely to be more diffuse than those of sequenced majors, and the responsibility for the general education curriculum is sometimes quite diffuse as well.

Of primary importance for this study are the principles or characteristics desirable for general education program evaluation, and some basic methods of evaluation.

A. Recommended Characteristics of Program Evaluation

According to C. Robert Pace (I19), institutions of higher education have seldom dealt with the broad range of liberal education goals in their efforts to evaluate. Usually evaluation is limited to intellectual criteria such as student scores on standard achievement tests, or student success in graduate schools. Broader goals touching the affective and moral development of students often are stated, sometimes are taken to heart by dedicated faculty, occasionally taken to heart by serious students, and never systematically evaluated.

But can such non-cognitive goals be evaluated? Can many of the goals of liberal education be subjected to some kind of measurement without being impoverished in the process? And if they cannot be evaluated, on what basis can we claim that a college education is more beneficial than the "school of hard knocks"?

Evaluation of general education programs should have these characteristics:

a. Evaluation should be systematic and objective.

The evaluator should therefore be able to detach himself from the program, yet be sympathetic. Criteria of evaluation should be definite, specific, and consistent.

b. Evaluation should be holistic.

The tendency to examine variables singly and not in relation to each other should be avoided. A college is organic: general education programs are related to majors, to electives, to the college environment; methods in teaching are related to content, to evaluation techniques, to the overall general education curriculum, and to the persons learning and teaching within it. A danger lies in the cost-accounting method of program evaluation if it is the primary or exclusive method, for it overlooks the educational goals of the college for the sake of operational efficiency. Other areas of evaluation are necessary as a basis for judging the merits of a course or program.

c. Evaluation should be periodic and regular.

Recurring evaluation of programs is needed to ensure continuing quality. The performance of those teaching in and managing a program tends to improve if they know they are to be evaluated at regular intervals.

d. Evaluation should be consistent with educational goals.

The criteria of evaluation should be based on the institution's stated goals for education, rather than simply on cognitive performance, fiscal performance, or the demands of outside accrediting agencies. Not that any of these elements should be ignored, of course, but that the primary criteria for evaluation are the goals of the institution of higher learning.

e. Evaluation should involve groups representing all participants in the program.

A comprehensive evaluation system of courses and program may and perhaps should include contributions from students, from colleagues, and from the major departments, as well as including fiscal responsibility and evaluating by accrediting agencies or graduate schools.

B. Methods of Evaluation

Objective measuring tools are not always available for noncognitive and for some cognitive areas. The validity of personal opinion--usually abundant in all areas--is often suspect. But the use of personal opinion can be justified through what Charles M. Stanton calls "consensual validation": agreement among those involved in a program about the worthwhileness of its components represents an approximation to objective measurement (L14).

Evaluation systems can then combine standardized, other objective, and consensual methods with a reasonable degree of reliability.

Standardized tests provide one component of such a package. The Graduate Record Examination, sometimes combined with the use of its undergraduate counterpart, provides some indication of the performance and ability of a college's students and/or graduates in relation to college students generally.

An objection raised against the use of the GRE as a criterion for determining the college's success is that differences among students are not taken into account, so that what the college has done for its particular students is not measured; only how those students perform. Perhaps the use of the undergraduate examination for the same students as underclassmen and then as seniors could provide more specific information.

Among other objective methods the most useful found by the group is the Higher Education Measurement and Evaluation Kit by C. Robert Pace and Associates (L8). Tools are included in the kit for evaluating student development, progress, and achievement, including attitudinal and humanistic areas; for evaluating college environment, including teachers; for evaluating learning styles among students; and for evaluating demographic characteristics, personality traits and values in the student population. Dr. Pace's 1974 report for the Lilly Endowment entitled "Evaluating Liberal Education" (L10) provides a perceptive background and a useful summary of methods for evaluating the college environment. Another source of information is the 1976 Handbook of Academic Evaluation by Paul Dressel (L4).

Consensual methods of evaluation include peer evaluation, student, and alumni evaluation.

Assessment by students is particularly valuable because it is the students who are most directly involved in the outcomes of the curriculum. However, student understanding and appreciation of those outcomes may not awaken until some time for distancing and for comparison provides for greater objectivity. Hence a combination of current student and alumni assessment is suggested.

Peer evaluation is often at once the most critically perceptive and the most sympathetic. The faculty members' courses may be evaluated by turn by the group of colleagues that form the department, or if that is too small,

the division. Guidelines for evaluation would be derived from the goals for general education in the institution.

Evaluation should be regular and systematic. Some components of evaluation, such as current student evaluation and cost accounting, are best done on a term-by-term basis. Cost in time and money preclude such frequent alumni and peer evaluations.

The group suggested that a rotating departmental review, particularly of the general education program, be conducted every five years once the program is established. However, yearly review for at least the first two years after implementation of a new program would be appropriate.

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D. Developmental Approaches (see also I2, *G27)

*D1 ADAPT: A Piagetian-based Program for College Freshman. University of Nebraska, Lincoln. ED 147 845. EDRS.
Very useful discussion of developmental levels likely in entering freshmen, basic method of fostering development, and classroom teaching methods appropriate for fostering development.

D2 Astin, Alexander and Panos, Robert J. Educational and Vocational Development of College Students. American Council on Education, 1969.

D3 Blimline, Carol and Klinck, Richard. "Developmental Education: The Recognition of Individual Differences." Journal of College Student Personnel 18:5 (Sep. 77) 403-05.
Describes one-credit courses to meet developmental needs at multi-campus community college with diverse student body.

D4 Bowles, W. Donald. "Distribution Requirements and Student-Faculty Learning Needs." Educational Record 57:4 (77), 357-61.
Return to structured general education can mean danger! Rather, new structures to meet student needs.

D5 Brown University. Catalog 1975-77. Providence, Rhode Island.
"Modes of Thought courses" - opportunities for students to participate actively with professor and small group.

*D6 Chickering, Arthur W. Education and Identity. San Francisco: Jossey-Bass, 1969.
Integrates most useful knowledge available about student development and transforms it into realistic plan of action.

D7 Dalton, Jon C. "Student Development from a Values Education Perspective." Counseling and Values 22:1 (Oct. 77), 35-40.
Student personnel: work on campus can be opportunity to develop integrity.

D8 The Educational Process. 1973. 207 pp. ED 133 807. EDRS.
Eighteen papers focusing on educational process (Australia).

D9 Knott, J. Eugene. "Some Perspectives on Carts and Horses in Student Development." Journal of College Student Personnel 18:5 (Sep. 77), 434-43.
Discussion and evaluation of processes for promoting student development.

D10 Kurfiss, Joanne. "Sequentiality and Structure in a Cognitive Model of College Student Development." Developmental Psychology 13:6 (Nov. 77), 565-71.

D11 Labouvie-Vief, Gisela. "Adult Cognitive Development: In Search of Alternative Explanations." Merrill-Palmer Quarterly 23:4 (Oct. 77), 227-64.
Selective and evaluative review of literature on adult cognitive psychology.

D12 Livergood, Norman D. "A Return to Real Education: Situation Learning." Humanist Educator 15:4 (June 77) 176-91.
Technique of "situational learning" a good way to know the self.

D13 Mars Hill College. Catalog 1977-78. Mars Hill, North Carolina.
Competency-based curriculum: New students interviewed and tested to determine level of development, interests and goals.

D14 Middleburg, Maurice J. Moral Education and Student Development During the College Years. A Selective Annotative Bibliography. ED 146 882. EDRS.
Forty books; all approaches to moral education included; three sections: 1) theoretical and empirical findings, 2) effect of college education on values, 3) philosophical problems in moral education.

D15 New Directions for Higher Education 20 (Winter 77), 1-96.
Series of papers on skill development in disadvantaged students.

D16 Pellino, Glenn R. "Student Development and Values Education." Counseling and Values 22:1 (Oct. 77), 41-51.
Evaluates theories of developmental psychology, re values education.

*D17 Perry, William G. Forms of Intellectual and Ethical Development in the College Years. New York: Holt, Rinehart & Winston, 1970.

D18 Perry, William G. "Studying and the Student." Higher Education Bulletin 5:2 (Sum. 77) 119-57.
Collection of occasional papers on student learning, advising, etc., at Harvard.

D19 "Piaget Takes Hold in Chemical Education." Chemical and Engineering News 55:14 (Apr. 77), 25-6. EJ 157 539.
Brief, to-the-point case of development considerations for general education.

D20 Roneche, John E. and Roneche, Suanne D. Developmental Education: A Primer for Program Development and Evaluation. ED 148 237.
Context: college students entering without adequate background in basic subject areas. Planning and evaluating developmental programs suggested.

D21 Roneche, John E., ed. "Increasing Basic Skills by Developmental Studies." New Directions in Higher Education 20 (Winter 77).

D22 Roneche, John E. and Snow, Jerry J. Overcoming Learning Problems: A Guide to Developmental Education in College. San Francisco: Jossey-Bass, 1977.
Includes information on "high-risk" students.

D23 Sanford, Nevitt, ed. The American College. New York: John Wiley & Sons, Inc., 1962.
Includes "Developmental Status of the Entering Freshman" by Nevitt Sanford, 253-82; "Curriculum in the Perspective of the Theory of Personality Development" by Joseph Katz and Nevitt Sanford, 418-44.

D24 Tidball, M. Elizabeth. "On Liberation and Competence." Educational Record 57:2 (Spr. 76), 101-10.
How learning environment can foster development.

D25 White, Burton. Education: The Process of Becoming What You Can Be. Mar. 76. 22 pp. ED 133 084. EDRS.
Aspects of education (from infancy through college) examined in series of NPR interviews.

E. Competency Approaches (see also C3, D13, D15, D21)

E1 Alverno College. Bulletin 1977-79. Milwaukee, Wisconsin.
Competency-based curriculum: core "learning process" focused on "development of abilities that are important and meaningful for effective living."

E2 A Cognitive-Skills Approach to the Disciplines: Intelligence beyond Arthur Jensen. CUE Projects Technical Paper Series no. 2. ED 148 793.
Bowling Green State University, Bowling Green, Ohio.
Teaching model applied in Spanish, physics, and philosophy. Good.

E3 Ewens, Thomas. Think Piece on CBE and Liberal Education. CUE Project Occasional Paper Series No. 1. May 1977. 38 pp. ED142 101. Bowling Green State University, Bowling Green, Ohio.
CBE and goals of liberal education; what are liberal competencies? relationship between liberal education and job?

E4 Friedman, E. Richard. "A New Composition Program for Oregon." Freshman English News 5:3 (Win. 77), 22-3.
Freshman composition: skill level prerequisite before freshman level courses.

E5 Jarrett, Herbert H., Jr. "Implications of Implementing Competency Based Education in the Liberal Arts." Educational Technology 17:4 (Apr. 77), 21-6.
History and survey of competency-based education in five institutions.

E6 Knott, Bob. "What is a Competence-Based Curriculum in the Liberal Arts?" Journal of Higher Education 46:1 (Jan./Feb. 75), 25-40.

*E7 Liberal Learning at Alverno College. 1976. 46pp. ED 134 100. EDRS.
Alverno began outcome-oriented liberal arts curriculum fall, 1973.
Outlines of 8 areas of competence toward which college orients its teaching.

E8 Peterson, Vance L., ed. Renewing Higher Education: The Competency-Based Approach. 1976. 113 pp. ED 127 874. EDRS.
Ten essays on philosophical and technical issues associated with competency-based education. Includes debate over liberal versus practical subjects, faculty renewal, impact of reform on student, validation of excellence.

E9 Sieben, J. Kenneth. "Competency-Based Education: Promise and Danger." Paper for Conference on College Composition and Communication, March 31-Apr. 2, 1977. Ed 147 821. EDRS.
Limits and possibilities of behavioral objectives in college English.

E10 Sterling College. Catalog, 1977-78. Sterling, Kansas.
Competency-based curriculum.

E11 Tatzel, Miriam. Prospects and Methods for Interpersonal Studies. Institutional Report, No. 2, Empire State College, Jan. 77. ED 148 847. EDRS.
Programs developing interpersonal skills.

E12 Trivett, David A. "Competency Programs in Higher Education." ERIC/Higher Education Research Report #7. Washington, D.C.: AAHE, 1975.

F. Interdisciplinary Approaches (see also A22, C8, G20, G26, G34, G36, G45, H14)

F1 Abbey, David S. Developing Interdisciplinary Studies Programs. A Project Search Development. The Humanities Series. 1976. 48 pp. ED 133 311. EDRS.
Booklet to help teachers from different disciplines to set goals and design teaching/learning experiences. Definition of interdisciplinary. Bibliography.

F2 Allen, Rodney T., and others. "Toward Goals for Multidisciplinary Energy Education." Journal of Environmental Education 8:4 (1977), 8-17.
Energy education curriculum at Florida State University. Sets context, problem, and fundamental concepts.

F3 Barnes, Donald G. "An Introductory Science Course for Majors and Nonmajors." Journal of College Science Teaching 6:1 (Sep. 76), 37-8.
Introductory science course for undergraduates; interdisciplinary, team taught, flexible.

F4 Baum, Joan. "Interdisciplinary Studies, the Latest Experimental Rage." College Composition and Communication 26:1 (Feb. 75), 30-3.
Cautionary notes about interdisciplinary programs.

*F5 Bayerl, Elizabeth. Interdisciplinary Studies in the Humanities: A Directory. Metuchen, N.J.: Scarecrow, 1977.
A collection of information from recent catalogs. It does not distinguish General Education from other offerings. Rather, it presents detailed descriptions of various core programs, including reading lists.

F6 Brown, James Seay, Jr. and Gillespie, J. David. "From Idealism to the Counterculture: On Teaching a Course on the 60's." Improving College and University Teaching 25:1 (Win. 77), 36-8, 40.
Interdisciplinary and team-taught course in modern history at Samford University.

F7 Buchsel, Traser S. "Implications of Interdisciplinary Research Centers for University Policies and Practices." Journal of Research and Development in Education 5:4 (Sum. 72), 58-62.
Stress on horizontal character of today's problems and consequent need for a holistic approach to knowledge.

F8 Corr, Charles A. "What Is Philosophical in the Death and Dying Course?" Death Education 1:1 (Spr. 77), 85-92. EJ 161 926.
Courses in death and dying: in principle should be team taught; emphasis on role of philosophy.

F9 "Description of Selected Interdisciplinary College Courses. Foreign Language Annals 10:1 (Feb. 77), 33-43.
MLA survey of alternate approaches to college language teaching; models for interdisciplinary and nontraditional approaches.

F10 Doyal, L. L. "Interdisciplinary Studies in Higher Education." Universities Quarterly 28:4 (Aut. 74), 470-87.
Minimal conditions for interdisciplinary study: structure, organization, content must meet certain criteria; appendix of course descriptions.

F11 Fethe, Charles B. "A Philosophical Model for Interdisciplinary Programs." Liberal Education 59:4 (Dec. 73), 490-7.

F12 Fryxell, Roald. "The Interdisciplinary Dilemma: A Case for Flexibility in Academic Thought." Occasional Paper No. 13. Augustanta College, Rock Island, Ill., 1977. 16 pp. ED 146 102. EDRS.
Anthropology as means of coordinating seemingly different fields since it relates social and biophysical sciences. Not meant to replace traditional programs but to expand intellectual frontiers.

F13 Gudykunst, William B., et. al. "An Analysis of an Integrated Approach to Cross Cultural Training." International Journal of Intercultural Relations 1:2 (Sum. 77) 99-110.
Reviews six approaches to cross-cultural training with benefits of integrated.

F14 Harris, Alan. "The Impossibility of a Core Curriculum." Oxford Review of Education 3:2 (77), 171-80.

White, John. "The Impossibility of a Core Curriculum: A Reply to Alan Harris." Oxford Review of Education 3:2 (77), 181-84.
Problems with undergraduate core curriculum, England, including bias and lack of agreement on base.

F15 Hill, Brian V. "Multi-disciplinary Courses: Mush or Muscle?" Australian University 14:1 (May 76), 48-57.
Interdisciplinary education: pitfalls and guides for improvement.

F16 Humphreys, Les. Interdisciplinarity: A Selected Bibliography for Users. 1975. 17 pp. ED 115 536. EDRS.
Humphreys' thinking and experience with implementing unified education concepts.

F17 Labianca, Dominich A. and Reeves, William J. "Correcting the Inherent Defect of Team Teaching." Journal of General Education 29:? (Sum. 77), 122-28.
Effective method in New School of Liberal Arts, Brooklyn College.

F18 Levensky, Mark. "Trying Hard: Interdisciplinary Programs at the Evergreen State College." Alternative Higher Education 2:1 (F. 77), 41-6.
Interdisciplinary, nontraditional state college program: it can work.

F19 Levine, Robert V. "An Interdisciplinary Approach to the Introductory Psychology Course." Teaching of Psychology 4:3 (Oct 77), 132-34.
Interdisciplinary introduction; integrates philosophy, psychology, political science, and English.

F20 McColl, John G. "Berkeley's Course on Environmental Assessment and Impact Reporting." Journal of Environmental Education 8:2 (76), 52-9.

F21 Moore, William E. The Concept of "Interdisciplinarity" and Implications of Languages. 1975. 6 pp. ED 139 235. Paper, Southern Conference on Language Teaching (11th, New Orleans, 1975).
Relevance of language content and instruction in interdisciplinary program.

F22 Morrison, James L. "Interdisciplinarity and Higher Education." Journal of General Education 26:1 (Apr. 74), 45-52.

F23 Moss, Andrew Ian. Toward a Rhetoric of Inquiry: A Study of the Theory, Application, and Evaluation of the Interdisciplinary Writing Course. 1976. 211 pp. ED 130 285.
Available University Microfilms, Ann Arbor, Mich.
Description of basic features of four interdisciplinary writing courses at UCLA. Section on writing as mode of learning.

F24 Odum, Eugene P. "The Emergence of Ecology as a New Integrative Discipline." Science 195:4284 (Mar. 77), 1289-93.
Encourages holistic approach as matrix for research and teaching in science.

F25 Penn, Mischa and Rutherford, Aris. "The Sciences and the Humanities." Chemical Engineering Education 11:2 (77), 68-73.
Course especially for engineering students: guidelines to foster interaction science and humanities.

F26 Petrie, Hugh G. "Do You See What I See? The Epistemology of Interdisciplinary Inquiry." Journal of Aesthetic Education 10:1 (Jan. 76), 29-43.
Philosophic foundations of interdisciplinary approach, factors affecting success; stress on interpretive knowledge.

F27 Potter, George T. "The Promise of Interdisciplinarity and Its Problems." Ramapo Papers, 1:3. 1977. 30 pp. ED 146 864. EDRS.
Problems encountered in interdisciplinary work: 1) definition of interdisc.; 2) no precedents; 3) administrative problems; 4) more time required by teachers; 5) cost.

F28 Powell, J. P. "Toward a Definition of Interdisciplinary Studies." Vestes 17:2 (Aug. 74), 124-26.

F29 Reeves, William J. and Deci, Eugene C. "An Academic Conversation." College English 39:3 (Nov. 77), 383-85.
Interdisciplinary course in physics and literature.

F30 "Report on Teaching: 6." Change. Aug. 78.
Articles concerning reform of interdisciplinary studies.

F31 Ritchie, Joan M. "Interdisciplinary Studies: Revolution or Revisionism?" Vestes 17:2 (Aug. 74), 127-32.

F32 Roy, Rustum. "Interdisciplinary Science on Campus--The Elusive Dream." Chemical and Engineering News 55:35 (Aug. 77), 28-30.
Argues for interdisciplinary approach to undergraduate science.

F33 Short, Edmund C. and Jennings, Thomas J. Jr. "Multidisciplinary: An Alternative Approach to Curriculum Thought." Educational Leadership 33:8 (May 76), 590-94.
Rationale for interdisciplinary approach: it is necessary for global, changing context of living.

F34 Singleton, Callie P. "The World Inside Out: Interdisciplinary Learning." Theory into Practice 12:4 (Oct. 73), 229-33.

F35 Wolfe, Denny T., Jr. and Taylor, Paul H. "Science and Humanities: Teaching the Two Cultures." Contemporary Education 48:4 (Sum. 77), 193-97.
Science and humanities must overcome artificial distinctions between them. Suggests need for a scientific method as a way of learning in every discipline--a process, a mode of inquiry, a point of view.

F36 Wolman, M. Gordon. "Interdisciplinary Education: A Continuing Experiment." Science 198:4319 (Nov. 77), 800-04.
Graduate level, Johns Hopkins U.: problems in interdisciplinary environmental studies program.

F37 Workshop on Interdisciplinary Education. Kentucky January Prototype. Proceedings. (University of Kentucky, Apr. 15-17, 75). Apr. 75. 137 pp. ED 129 134. EDRS.
Interdisciplinary education in allied health. Source for facets of developing interdisciplinary activities.

G. Structures for General Education Programs (see also A41; C11, 12, 15, 16, 18; D1, 5, 13; E1, 7, 10.)

G1 Blackburn, Robert and others. Changing Practices in Undergraduate Education. A Report for the Carnegie Council on Policy Studies in Higher Education. 1976. 62 pp. ED 130 575. EDRS.
Curriculum changes in American colleges and universities. Content, structure, proportion of general education requirements. Shows definite move toward specialization.

G2 Bordier, G. and others. Curriculum Revision: A Methodological Approach. Main Conclusions of the Study. 1975. 49pp. ED 121 229. EDRS.
Restructuring of liberal arts in economic higher education.

G3 Bradley, Douglas. "Teaching Anthropology Is A Good Way to Teach Writing." College Composition and Communication 28:3 (Oct. 77), 251-56.
Intercultural communication--a framework for college writing.

G4 Calabro, Hilda. "Curricular Relevance for Today's Youth." Improving College and University Teaching 23:1 (W. 75), 49-50.
Experimental program at Hampshire College.

G5 Changing Tasks and Roles in Higher Education. A Total Institutional Project at Austin College. 1975. 134 pp. ED 125 488. EDRS.
Students' self-direction: redistribution of educational responsibilities.

G6 Collins, Charles C. and Drexel, Karl O. General Education: The Los Medanos College Model. 218 pp. ED 116 746. EDRS.
General education model: general education as hub of curriculum.

G7 Connelly, Peter J. and Irving, Donald C. "Composition in the Liberal Arts: A Shared Responsibility." College English 37:7 (Mar. 76), 668-70.
Composition at Grinnell - interdisciplinary: describes seminars held to help faculty members.

*G8 Coughlin, Bernard J. "New Modes in Liberal Education." Liberal Education 42:4 (Dec. 76), 585-98.
Relate liberal arts to modern world (Gonzaga University). Alternative models presented.

G9 Crossland, Fred E. Current Ventures in Undergraduate Education. Nov. 15, 1974. 75 pp. ED 098 866. EDRS.
Innovation in undergraduate education; program descriptions of 49 colleges and universities with creative curricula.

G10 DeMont, Billie and Demont, Roger A. "The Commitment to Personalized Learning and Its Relationship to Student Behavior." Liberal Education 62:2 (Oct. 76), 407-16.
Curricula designed to have students take full responsibility. Proposes study model.

G11 Duplass, James A. "Degree Depreciation: A Fait Accompli for the Liberal Arts Degree." Liberal Education 42:4 (Dec. 76), 545-50.
Credibility of liberal arts degree vis a vis professional school shows need for more rigorous standards and requirments.

G12 Eis, Jennifer. Taking Off: An Organizational Handbook and Comprehensive Worldwide Resource Guide for Non-Traditional Higher Education. 1975. 402 pp. ED 130 576. EDRS.
Handbook and guide for nontraditional higher education. Part 1: operational guide for development, organization, evaluation of alternative resource center. Part 2: comprehensive resource guide.

G13 Eriksen, Stanford C. Development and Experiment in College Teaching. No. 12. 1976. 66 pp. ED 129 177. EDRS.
Reports experimental instructional projects and educational programs begun by Big 10 university teachers. Sec. 1: dept.-based projects. Sec. 2: institutional support. Sec. 3: cumulative index to all 12 reports.

G14 The Evergreen State College. Catalog 1976-77. Olympia, Washington.
Highly innovative; nontraditional program involving independent study, discussion/criticism/evaluation seminars, stress on individual responsibility.

G15 Foa, Lin. "The Integrated Humanities in Higher Education: A Survey." Journal of Aesthetic Education 7:3 (Jul. 73), 85-98.
Survey and evaluation of 134 humanities programs.

G16 Foshay, Arthur. "The Arts in General Education." Art Education 26:26 (Sep. 73), 2-6.
The arts in general education as part of day-to-day life.

G17 French, David. "History 213 or the Yearning to be Free." Liberal Education 62:3 (Oct. 76), 472-87.
Candid appraisal of one experiment in nondirected learning, stressing student-teacher relationship.

G18 General Education Proposal, Miami-Dade Community College. ED 146 957. EDRS.
Goals and requirements for general education; multi-disciplinary courses developed by faculty teams.

G19 Golman, Ari L. "Debating 'Life Experience.'" New York Times, sec. 12, pp 1, 16, September 11, 1977.
Problems re granting credit for experience, adult education.

G20 Gosselin, Edward A. "History of Science as a Device for Reconciling the Sciences and the Humanities." Teaching History: A Journal of Methods 2:2 (F. 77), 41-9.

G21 Gould, Samuel B. "Let's Hear It for Nontraditional Education." AGB Reports 18:5 (Sep./Oct. 76), 17-22.
Explains open-learning concept and its great success.

G22 Harris, John. Teaching-Learning Issues. Curriculum Innovation Three Dimensions. 1974. 15 pp. ED 112 777. EDRS.
Restructuring of undergraduate curricula: three essential areas--management, structure, purpose.

*G23 "Harvard Weighs Plan to Reform College Curriculum." The Chronicle of Higher Education 16:2 (Mar. 6, 78), 1, 15-19.

G24 Heydinger, Richard B. and others. College IV: The Evolution of an Experiment in Self-Paced Instruction. Final Report. May 1977. 77 pp. ED 148 373. EDRS.
Evolution of experimental college designed to facilitate access to education for the working adult. Grand Valley State College, Mich.

G25 Hogges, Ralph. Curriculum and Instructional Processes in American Higher Education. Apr. 1976. 16 pp. ED 127 858. EDRS.
Following issues examined: 1) planning curricula to meet student needs; 2) lectures; 3) group discussion; 4) whether or not a teacher is needed. Changes needed to meet student needs.

G26 Huber, Curtis E. "The Dynamics of Change: A Core Humanities Program." Liberal Education 63:2 (May 77), 159-70.
Pacific Lutheran Univ.'s integrated studies program: paired or sequenced courses integrated by theme.

*G27 Keeton, Morris T., et. al. Experimental Learning: Rationale, Characteristics, and Assessment. San Francisco: Jossey-Bass, 1976.

G28 Keeton, Morris T. "Integrating Education and Practical Experience in American Higher Education." Liberal Education 63:2 (May 77), 259-70.
Current state of U. S. experiential education assessed in contrast with China.

G29 Ladd, Dwight R. Change in Educational Policy: Self-Studies in Selected College and Universities. Hightstown, N. J.: McGraw-Hill, 1970.
A study of attempts at curriculum reform.

G30 Liturien, James and others. The University Seminar Program: A Formative Evaluation of the First Year. July, 1976. 99 pp. ED 127 898. EDRS.
Results of a study (1975) evaluating freshman seminar at Bowling Green State University.

G31 Martin, Warren Bryan. "Service Through Ideas of Value." New Directions for Higher Education No. 18. (Redefining, Service, Research and Teaching) 5:2 (Sum. 77), 1-16.
School and community, offer opportunities for involvement not just study.

G32 Mayhew, Lewis B. How Colleges Change: Approaches to Academic Reform. 1976. 56 pp. ED 125 607. EDRS.
Nature of innovation in higher education; how educational technology could be more effective.

G33 McGrath, Earl J. "Institutional Alternatives for an Education in Values." Counseling and Values 22:1 (Oct. 77), 5-19.

G34 Merritt, Raymond H. and Drake, Donald E. III. "Technology and Cultural Values: Revitalyzing an Undergraduate Humanities Curriculum." Journal of General Education 29:2 (Sum. 77), 141-51.
Interdisciplinary undergraduate curriculum exploring relation between technology and culture.

G35 Morrill, Warren T. "Rethinking the Introductory Course: Structural Determinants of Content." Journal of General Education 29:2 (Sum. 77), 129-40.
Intro. to anthropology in large state university shows planned innovation.

G36 Romey, Bill. "Interterm Crisis: Problems of Implementing an Open, Student-Centered Program Within a Conventional Framework." Interface Journal 1:1 (Win. 74-75), 23-9.
Problems and conflicts encountered with nonstructured studies in Geology and Geography, St. Lawrence University, Jan. term.

G37 Romey, Bill. "Radical Innovation in a Conventional Framework: Problems and Prospects." Journal of Higher Education 48:6 (Nov./Dec. 77), 680-96.
St. Lawrence University, innovative program in academic department, stressing projects not courses.

*G38 Schambach, Robert A. "A Model for Curricular Change: The Whittier Experience." Liberal Education 62:3 (Oct. 76), 401-6.

G39 Stapp, William B. "International Environmental Education: The UNESCO-UNEP Programme." Journal of Environmental Education 8:2 (76), 19-25.
UN programme: details objectives, goals, and problem areas.

G40 Stephenson, John B. and Sexton, R. F. Experimental Education and the Revitalization of the Liberal Arts: A Working Paper. 1974. 35 pp. ED 096 867. EDRS.
Liberal arts can be strengthened (or even saved) by combining it with experiential learning.

G41 Suddarth, Betty M. "An Investigation of General Education Requirements in College Curricula." Research in Higher Education 3:3 (75), 197-204.

G42 Suttle, Bruce B. "Recent Trends in Teaching Beginning Philosophy Students." Journal of Thought 12:3 (Jul. 77), 210-14.

G43 Vaccaro, Louis C., ed. Reshaping American Higher Education. 1975. 152 pp. ED 131 763. EDRS.
Essays on current issues in American higher education including changes in typical college curricula and comprehensive (as opposed to piecemeal) change as part of future of American higher education.

G44 Wallin, Franklin W. "Educational Implications of the Limits to Growth: Colleges as Instruments for a Great Transition." Liberal Education 62:2 (May 76), 133-42.

G45 Zigerell, James J. "What's Happening to the Humanities?" Community College Frontiers 6:1 (F. 77), 7-11.
Interdisciplinary humanities curriculum developed by consortium of three junior colleges.

H. General Education and Values (see also D7, D16, G31, G33, I44, I20, I23)

H1 Barksdale, Milton Kendall. Values and Higher Education; Some Observations. Oct. 77. 28 pp. ED 145 787. EDRS.
Personal development in higher education. Suggestions for approaches for teaching ethics.

H2 Bowers, C. A. "Curriculum and Our Technocracy Culture: The Problem of Reform." Teachers College Record 78:1 (Sep. 76), 53-67.
Dominant cultural values and education; questions whether old values still viable.

H3 Doboon, Russell. "Humane Education: A Model." National Association for the Advancement of Humane Education Journal 3:3 (F. 76), 19-24.
Follow-up article subsequent. Hypothetical model of education; incorporates basic beliefs of man as guides.

H4 Harrison, John L. "A Note on What 'Value' or 'Moral' Education Is." Journal of Educational Thought 9:2 (Aug. 75), 127-28.
Clarification of objectives when teaching value education.

H5 Henderson, Hazel. "Ideologies, Paradigms, and Myths: Changes in Our Operative Social Values." Liberal Education 62:2 (May 76), 143-57.
Changing social values; greater citizen involvement in decision-making.

H6 Hennessey, Thomas C. Values and Moral Development. New York: Paulist Press, 1976.

H7 Huckle, John. "Geography and Values in Higher Education: I." Journal of Geography in Higher Education 1:2 (Aut. 77), 13-9.
Restoration of stability requires commitment to pro-environment values, as opposed to relativism.
NB Journal available from Faculty of Modern Studies, Oxford Polytechnic Meadington, Oxford OY3 OBP, England.

H8 Lockwood, Alan L. "What's Wrong with Values Clarification." Social Education 41:5 (May 77), 399-401.
Exposes fundamental flaws in values-clarification approach to values education.

H9 Martin, J. Paul. "Moral Values and University Education." Counseling and Values 22:1 (Oct. 77), 20-34.
Review of current approaches to moral education.

H10 McGrath, Earl J. Values and American Higher Education. Topical Paper No. 2. July, 76. 20 pp. ED 130 551. EDRS.
Beliefs that govern the conduct and define the goals of American higher education are examined in relation to society as a whole. Lack of direction noted. Individual and national values largely determined by kind of education liberal arts college has provided.

H11 Middleberg, Maurice J. "Moral Education and the Liberal Arts." Educational Record 57:4 (77), 236-40.
Call for professional responsibility--value issues fundamental in education.

H12 Pace, C. Robert. Education and Evangelism. New York: McGraw-Hill, 1972.

H13 Splete, Allen P. "Values and the Survival of the Liberal Arts College." Liberal Education 43:1 (Mar 77), 118-25.
Value and value-skills as central to education.

H14 Willard, Beatrice E. "Natural Principles and Values for a New Century." Journal of Environmental Education 8:1 (76), 2-9.
Ecosystem principles as value base for interdisciplinary education.

I. The Learning Community

I1 Aitken, Caroline E. and Conrad, Clifton F. "Improving Academic Advising Through Computerization." College and University 53:1 (F. 77), 115-23.
Evaluates computer-assisted advising at University of Denver.

I2 Appleby, E. J. "The Role of Teaching in Higher Education--Its Decline and Revival." Liberal Education 59:4 (Dec. 73), 449-63.
Starting from the principle that learning goes on only when the learner is engaged in the process with mind, will and feelings, the author argues that humanistic study must be integrated with existential questions of personal and social development.

*I3 Ashby, Warren. "University Personnel Today: Faculty." Liberal Education 63:1 (Mar. 77), 80-90.
Faculty needs fresh and continuing reflection on its role.

I4 Astin, Alexander. College Environment. Washington, D. C.: American Council on Education, 1968.

I5 Axelrod, Joseph. The University Teacher as Artist: Toward an Aesthetics of Teaching with Emphasis on the Humanities. San Francisco: Jossey-Bass, 1973.
"Raising daily classroom practice to the level of art."

I6 Ballantine, Jean H. "Course Improvement by Systematically Eliciting Student Reactions." Teaching Sociology 5:2 (Jan. 78), 167-69.
Benefit of student feedback for teaching quality.

*I7 Botstein, Leon, "The Lonely Children of the Lonely Crowd." Change, May, 1978.

*I8 Cross, K. Patricia. "The New Learners." Change, Feb. 1973.
Adult learners appear interested in the practical, not the "basic disciplines."

I9 Eble, Kenneth E. The Craft of Teaching: A Guide to Mastering the Professor's Art. San Francisco: Jossey-Bass, 1976.

*I1C Feldman, Kenneth A. and Newcomb, Theodore M. The Impact of College on Students. San Francisco: Jossey-Bass, 1969.
College changes people; often however colleges can accentuate limits rather than foment change. Small, four-year residential colleges seem to have most impact. Single most influential agent is older students.

I11 Garwood, John D. "The Wrong Premise in General Education." Intellect 102:2351 (Oct. 73), 43-4.
Relevance of general education depends on teacher more than course.

I12 Ginn, Robert Jay, Jr. "Once You're in College--What?" Independent School 37:1 (Oct. 77), 46-8.
Advice to students on planning a college curriculum, esp. liberal arts.

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I21 Poznar, Walter. "The Survival of the Humanities." Liberal Education 43:1 (Mar. 77), 19-25.
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I22 Smith, Jerry. "Toward an Existential Model of Teaching and Learning." Viewpoint 53:3 (May 77), 71-80.
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I23 Wyatt, J. F. "The Idea of Community in Institutions of Higher Education." Studies in Higher Education 2:2 (Oct. 77), 125-35.
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I24 Yankelovich, Daniel and Clark, Ruth. "College and Noncollege Youth Values." Change, Sept., 1974.
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J. General Education and Specialization/Career (see also B3, C4)

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*J4 Baratz, Morton S. "Career Education Is Complementary to Liberal Arts Education." College Board Review 105 (F. 77), 25-6.
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J9 Cheit, Earl F. The Useful Arts and the Liberal Tradition. New York: McGraw-Hill, 1975.
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J10 DeVore, Paul W. Technology and the New Liberal Arts. Monograph Series I. 1976. 20 pp. ED 133 260. EDRS.
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J12 Givens, Paul R. "Toward a New Emphasis on Human Values in Higher Education." Liberal Education 60:4 (Dec. 74).

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J16 High, Sidney C., Jr. "Can Career Education Get Off the Ground?" Occupational Outlook Quarterly 21:2 (Sum. 77), 4-7.
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J17 Hoyt, Kenneth B. "Why Johnny and Joann Can't Work." Occupational Outlook Quarterly 21:2 (Sum. 77), 1-3.
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J20 McGrath, Earl. Are Liberal Arts Colleges Becoming Professional Schools? Institute of Higher Education, Teachers College, Columbia University, 1958.

*J21 McGrath, Earl J. "Careers, Values, and General Education." Liberal Education 60:3 (Oct. 74), 281-303.
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J34 Toombs, William. Career Education and Undergraduate Study. Nov. 1976. 7 pp. ED 130 554. EDRS.
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J36 Vermilye, Dyckman W., ed. "Relating Work and Education." Current Issues in Higher Education. San Francisco: Jossey-Bass, 1977.
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K. Implementing Changes in General Education (see also G22, G 32, G43)

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K2 Burnett, Collins W. "The Myth of Change in Higher Education." Intellect 102:2357 (Apr. 74), 424-25.
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K3 Bragg, Stephen M. "St. Olaf and the Paracollege: A Case Study of Planned Curricular and Organizational Change in Higher Education." Journal of General Education 29:2 (Sum 77), 152-71.
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K4 Kaylow, Carole. "Faculty Receptivity to Organizational Change: A Test of Two Explanations of Resistance to Innovation in Higher Education." Journal of Research and Development in Higher Education 10:2 (W. 77), 87-98.
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K6 McGrath, Earl. Cooperative Long-Range Planning in Liberal Arts Colleges. Institute of Higher Education, Teachers College, Columbia University, 1964.

K7 Melander, E. R. and Pitts, Edward I. "Faculty and Administrative Roles in Fostering Curricula Innovations." Journal of General Education 29:2 (Sum 77), 113-21.
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K8 Millet, John D. "The Changed Climate of Planning." New Directions for Higher Education 5:3 (Aut. 77), 91-6.
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K9 Ostergren, Bertil. Planning for Change in Higher Education. 1975. 46 pp. ED 115 160. EDRS.
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K11 Perkus, Gerald H. and Christopulos, Diana K. "Change of Life at Hartwick College." New Directions in Higher Education 15 (Aut. 76), 69-81.
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K13 Smith, Harry E. "Renewing Liberal Arts Colleges." Liberal Education 43:3 (Oct. 77), 468-76.
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L. Evaluating General Education (see also G30)

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L2 Curriculum Reform for Concordia College. Moorhead, Minn., 1970. ED 035 377. EDRS.
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L3 Donaldson, Robert S. Fortifying Higher Education: A Story of College Self Studies. Sept. 1959. 66 pp. ED 135 292. EDRS.

*L4 Dressel, Paul. Handbook of Academic Evaluation. San Francisco: Jossey-Bass, 1976.

L5 Edwards, Scott. "A Modest Proposal for the Evaluation of Teaching." Liberal Education 60:3 (Oct. 74), 316-26.
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L6 Hatch, Winslow R. What Standards Do We Raise? New Dimensions in Higher Education. No. 12. ED 145 740. EDRS.
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L7 Kester, Ralph J. Evaluating the Process of Educational Change: A Method. Apr. 1976. 30 pp. ED129 845. EDRS.
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*L8 Pace, C. Robert and Associates. Higher Education Measurement and Evaluation Kit. Revised. UCLA: Laboratory for Research in Higher Education, 1975.

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L13 Overeshi, M. Y. "Evaluation of an Undergraduate Psychology Curriculum." Journal of Experimental Education 45:3 (Spr. 77), 42-50.
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*L14 Stanton, Charles M. "A Perception-based Model for the Evaluation of Career and Value Education Within the Liberal Arts." Journal of Higher Education 49:1 (Jan.-Feb. 78).
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L16 Witonski, Peter. What Went Wrong With American Education and How to Make it Right. New Rochelle, NY: Arlington House, 1973.
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